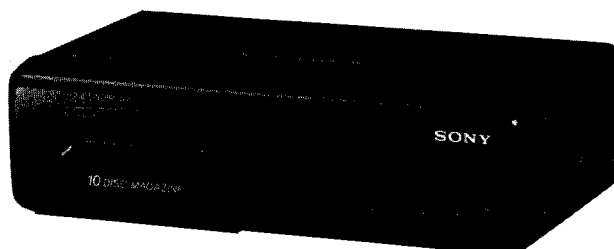


CDX-A55

SERVICE MANUAL

*US Model
Canadian Model
AEP Model
E Model
UK Model*



Model Name Using Similar Mechanism	CDX-U500
------------------------------------	----------

SPECIFICATIONS

System Compact disc digital audio system
Laser diode properties
Material: GaAlAs
Wavelength: 780 nm
Emission duration: Continuous
Laser output power: Less than 44.6 μ W*
* This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pickup Block.
Frequency response 5 - 20,000 Hz $\pm$ 1 dB
Wow and flutter Below measurable limit
Signal-to-noise ratio 92dB
Outputs Line output (for changer connector only)
Current drain 800 mA (CD playback)
800 mA (during loading or ejecting a disc)
Operating temperature - 10°C to 55°C (14°F to 131°F)
Dimensions Approx. 305 x 88 x 177 mm (w/h/d)
(12¹/₈ x 3¹/₂ x 7 in.)
not incl. projecting parts and controls
Weight Approx. 2.5 kg (5 lb. 8 oz.)
Power requirement 12 V DC car battery
(negative ground)
Supplied accessories
Disc magazine (1)
Mounting hardware (1 set)
Connecting cable (1)
Optional accessories
Compact disc single adaptor CSA-8
Disc magazine XA-10B
CD cleaning kit CDM-2BK

Design and specifications subject to change without notice.

Système Audionumérique pour disque compact
Réponse en fréquence 5 - 20,000 Hz $\pm$ 1 dB
Pleurage et scintillement Inférieurs à la limite mesurable
Rapport signal/bruit 92dB
Sorties Sortie de ligne (pour le connecteur du changeur uniquement)
Consommation 800 mA (lecture de CD)
800 mA (pendant le chargement ou l'éjection d'un disque)
Température de fonctionnement - 10°C à 55°C (14°F à 131°F)
Dimensions Env. 305 x 88 x 177 mm (l/h/p)
(12¹/₈ x 3¹/₂ x 7 pouces)
saillies et commandes non comprises
Poids Env. 2.5 kg (5 livres 8 onces)
Alimentation CC sur batterie de voiture de 12 V
(masse négative)
Accessoires fournis
Magasin à disques (1)
Matériel de montage (1 jeu)
Cordon de raccordement (1)
Accessoires en option
Adaptateur simple de disque compact CSA-8
Magasin à disques XA-10B
Kit de nettoyage de disques compacts CDM-2BK

La conception et les spécifications peuvent être modifiées sans préavis.

COMPACT DISC CHANGER
SONY®

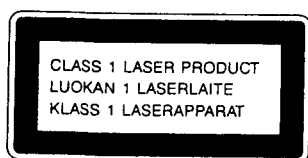


NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.



This Compact Disc player is classified as a CLASS 1 LASER product.

The CLASS 1 LASER PRODUCT label is located on the rear exterior.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

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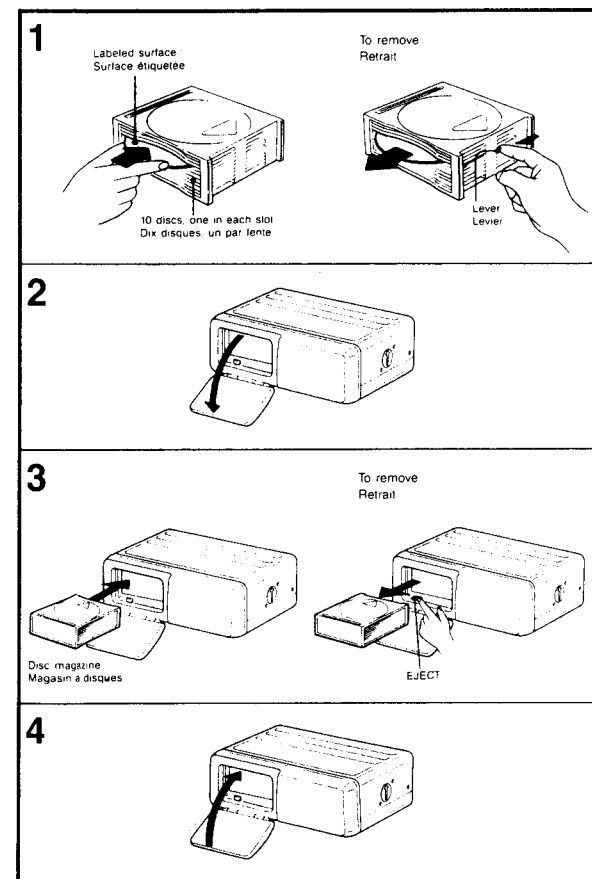
This section is extracted from instruction manual.

SECTION 1 GENERAL

Features/Caractéristiques

- A selection of tracks from 10 discs stored in the disc magazine can be made and automatically played in the order of your preference.
- Compact and space-saving design for vertical, horizontal or suspended installation.
- 8 fs digital filter for high quality sound.
- 1 bit D/A converter.
- Programmation et mémorisation des dix disques du magasin et lecture automatique des plages programmées dans l'ordre souhaité.
- Modèle compact et peu encombrant, pouvant être placé à la verticale, à l'horizontale ou suspendu.
- Filtre numérique 8 fs, améliorant la qualité du son.
- Convertisseur N/A 1 bit.

Preparations/Préparatifs



Use the unit with the door closed
Otherwise, foreign matter may enter the unit, and contaminate the lenses in the player.

Note
To play a 3-inch CD, use the Sony CSA-8 adaptor (not supplied). Playing a 3-inch CD without the adaptor may damage the unit.

Utiliser cet appareil avec la porte fermée
Si cela n'est pas fait, des matières étrangères peuvent entrer dans l'appareil et encrasser la lentille du lecteur.

Remarque
Pour la lecture de disque compact de 8 cm (3 po.), utiliser l'adaptateur Sony CSA-8 (non fourni). Sans lui, l'appareil risque d'être endommagé.

Installation/Installation

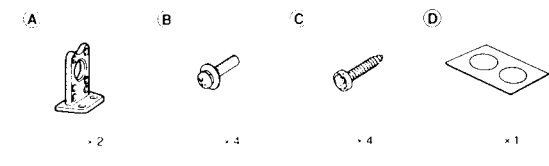
Precautions

- Choose the mounting location carefully, observing the following:
 - The fuel tank should not be damaged by the tapping screws.
 - There should be no wire harnesses nor pipelines under the place where you are going to install the unit.
 - The spare tire, tools or other equipment in or under the trunk should not be interfered with or damaged by the screws or the unit itself.
- Be sure to use only the supplied mounting hardware for a safe and secure installation.

Précautions

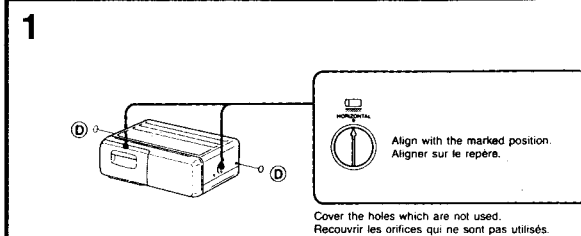
- Choisir soigneusement l'endroit de montage en observant ce qui suit:
 - Le réservoir d'essence ne doit pas être endommagé par les vis taraudeuses.
 - Il ne doit pas y avoir de faisceau de fils ou de tuyaux à l'endroit où l'on désire installer l'appareil.
 - La roue de secours, les outils ou autre équipement dans ou sous le coffre ne doivent pas être gênés ni endommagés par les vis ou l'appareil lui-même.
- S'assurer d'utiliser uniquement le matériel de montage fourni pour une installation correcte et sûre.

Supplied Mounting Hardware Matériel de montage fourni

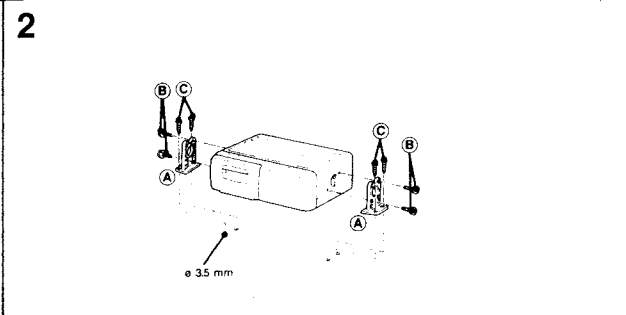


How to Install the Unit

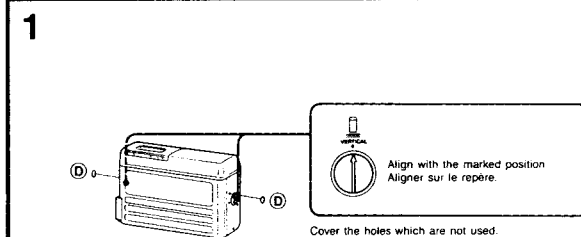
Horizontal Installation



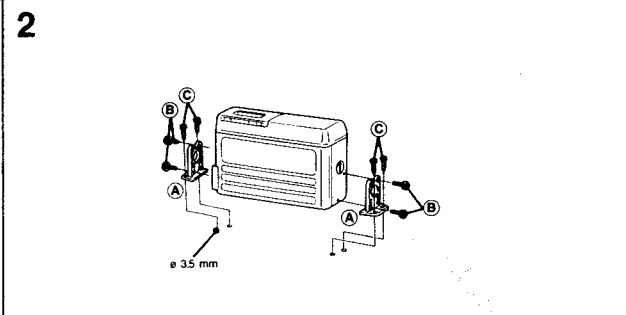
Installation de l'appareil à l'horizontale



Vertical Installation



Installation verticale



Suspended Installation

When the unit is to be installed under the rear tray etc. in the trunk room, make sure that the following provisions are made.

- Choose the mounting location carefully so that the unit can be installed horizontally.
- Make sure that the unit does not hinder the movement of torsion bar spring etc. of the trunk lid.

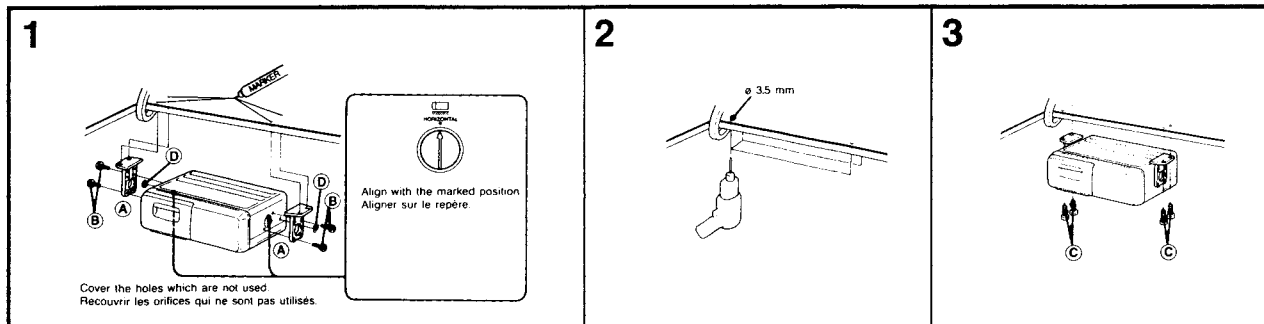
Caution
Before making holes, make sure that there are not anything on the opposite side of the rear tray.

Installation suspendue

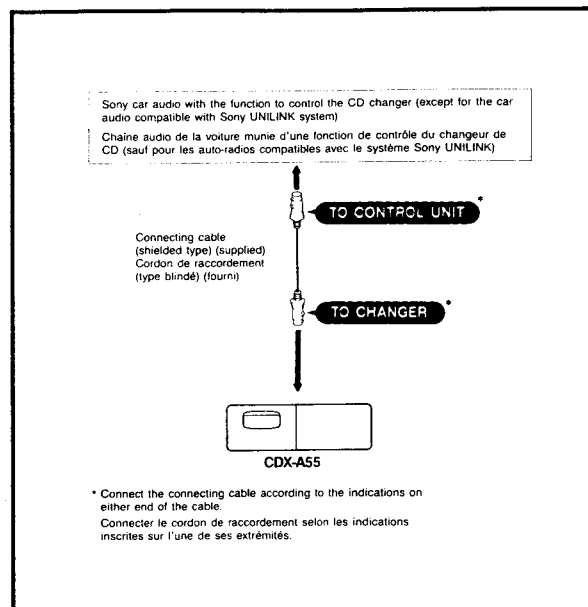
Si l'appareil doit être installé sous le plateau arrière dans le coffre, par exemple, prenez d'abord les précautions suivantes.

- Bien choisir l'emplacement pour pouvoir installer l'appareil à l'horizontale.
- Vérifier que l'appareil ne gêne pas le mouvement du ressort du capot, entre autres.

Précaution
Avant de creuser les trous, vérifier que rien ne se trouve de l'autre côté de la plage arrière.



Connections/Connexions



Caution
Before making connections, disconnect the ground wire terminal of the car battery to avoid short circuits.

Notes

- Be sure to use the supplied connecting cable. Using a connecting cable other than supplied one may cause noise.
- For details, refer to the Installation/Connection manual of each product.
- This unit cannot be operated by the remote commanders RM-X1, RM-X2 or RM-X2001.

Attention
Avant d'effectuer les connexions, débrancher le fil de masse de la batterie de voiture pour éviter un court-circuit.

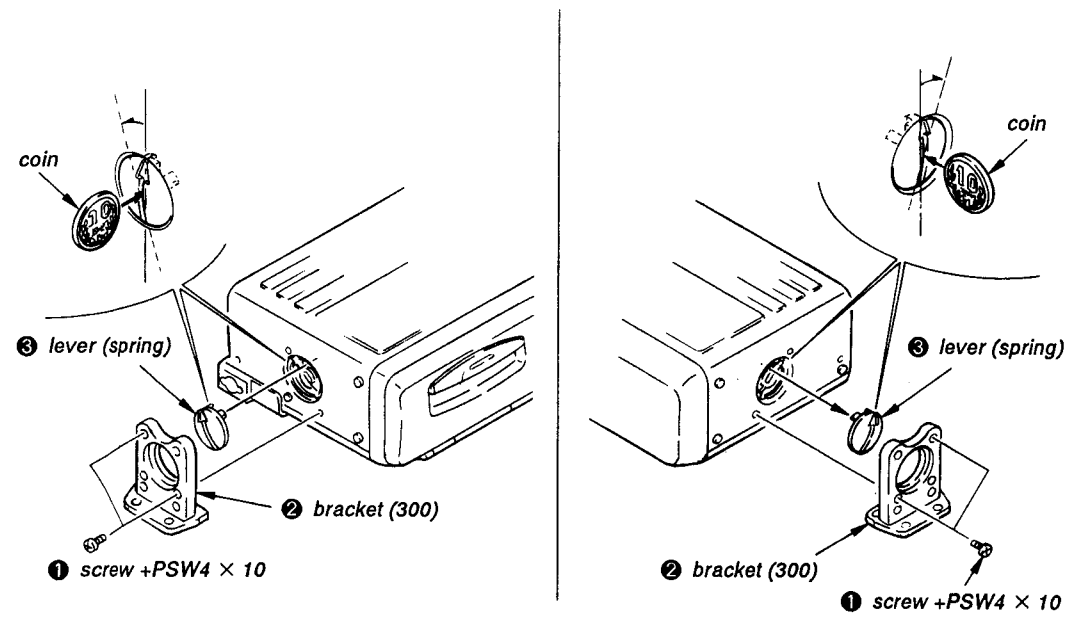
Remarques

- S'assurer d'utiliser le cordon de raccordement fourni. D'autres cordons de raccordement risqueraient de causer des parasites.
- Pour plus de détails, se reporter au mode d'emploi pour l'installation/connexion de chaque produit.
- Cet appareil ne peut pas être contrôlé à distance par les télécommandes RM-X1, RM-X2 ou RM-X2001.

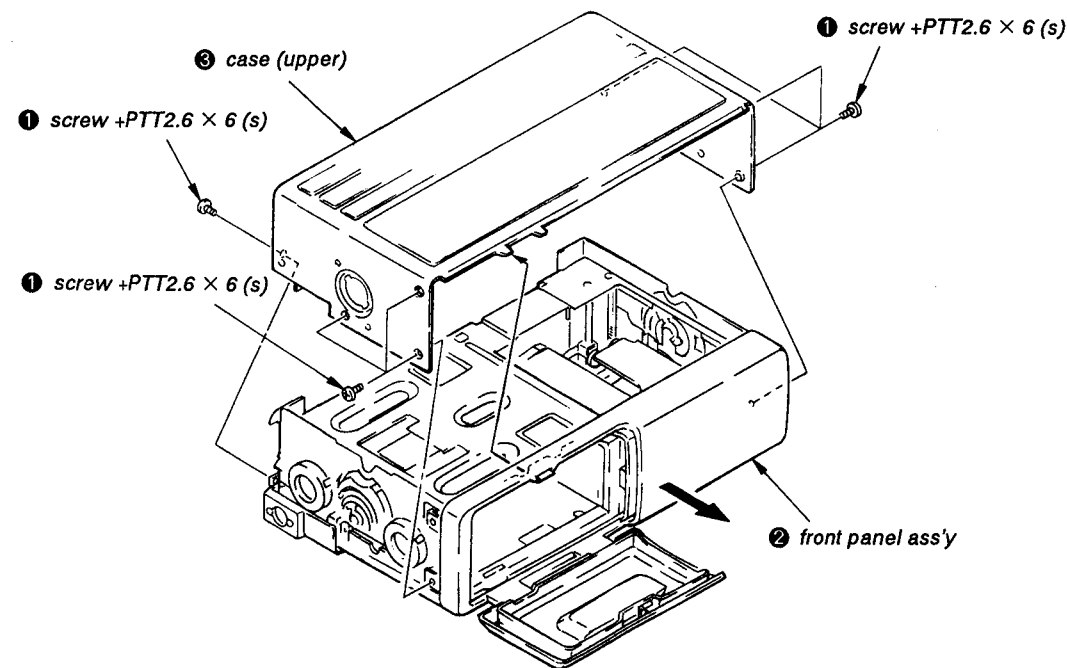
SECTION 2 DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

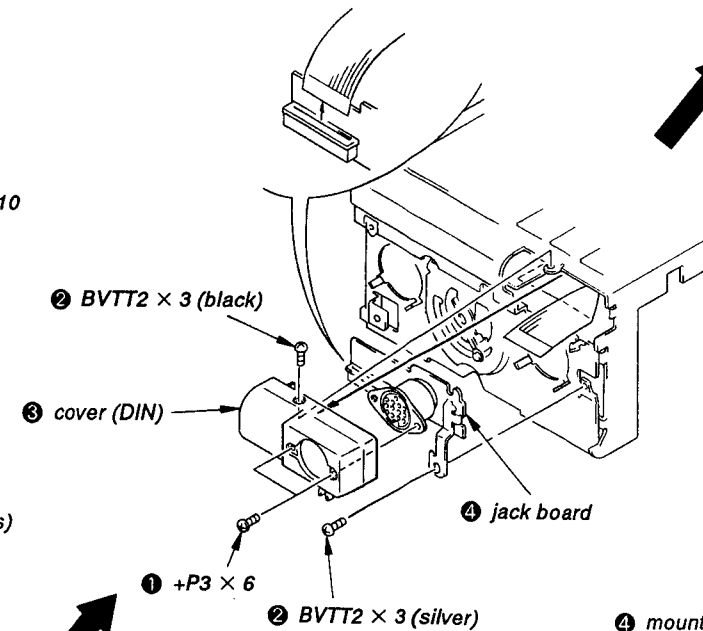
BRACKET (R) AND (L)



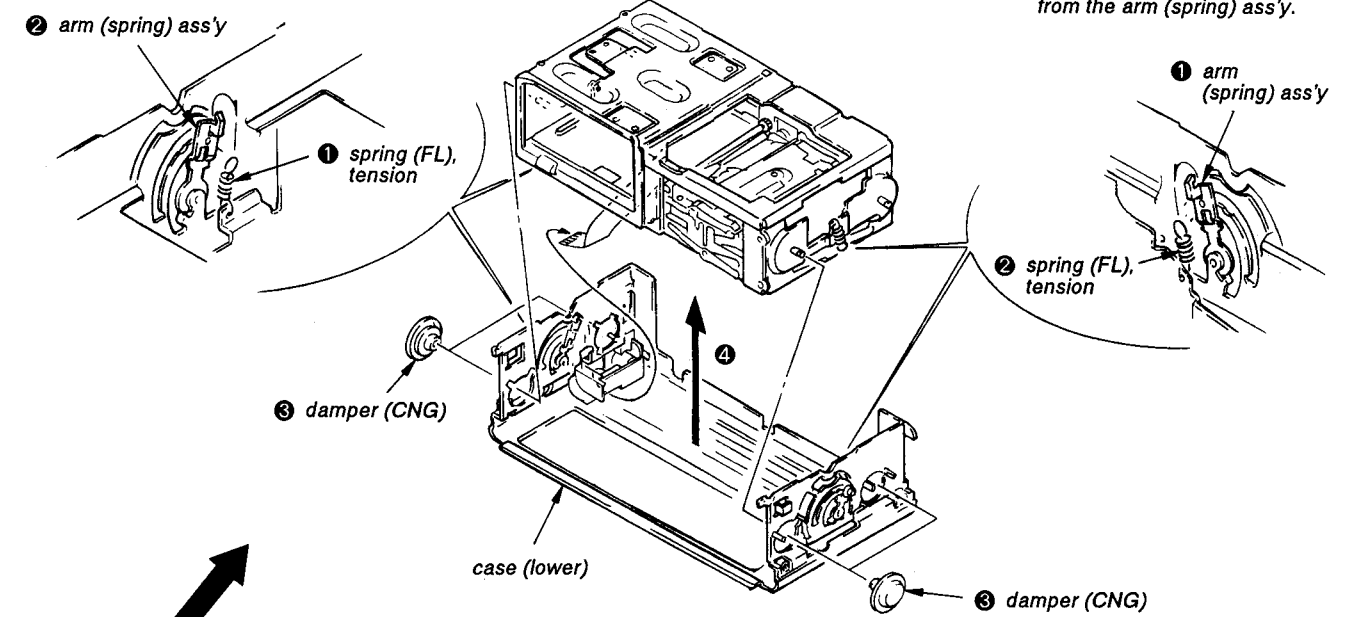
CASE (UPPER) AND FRONT PANEL ASS'Y



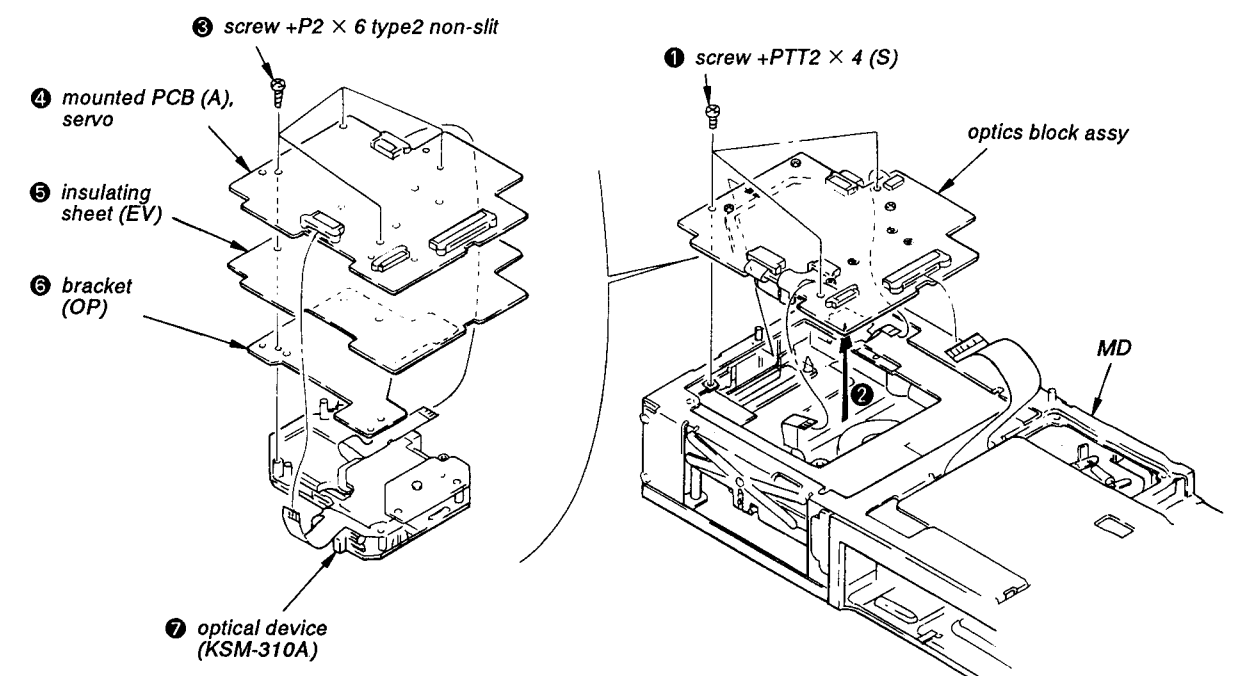
COVER (DIN)



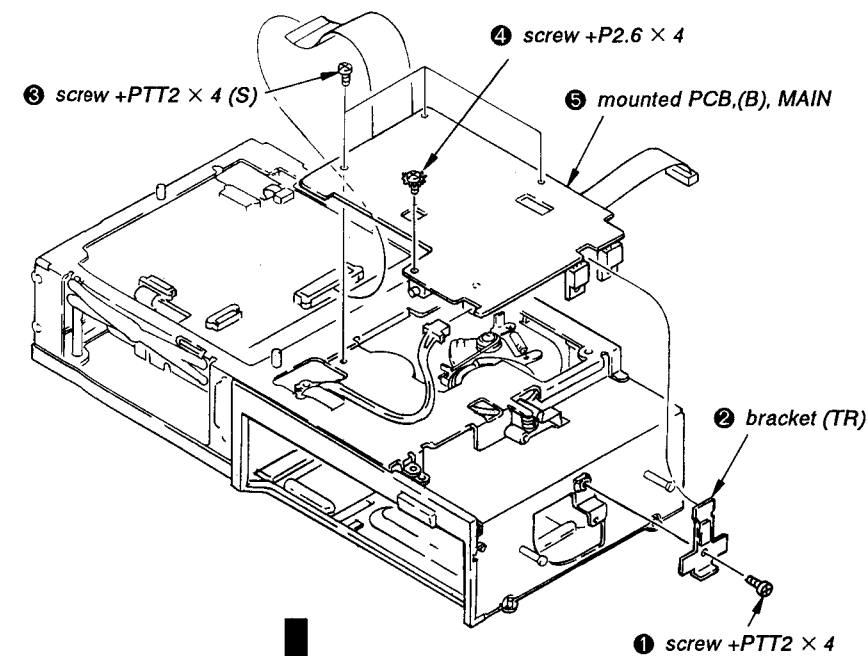
CASE (LOWER)



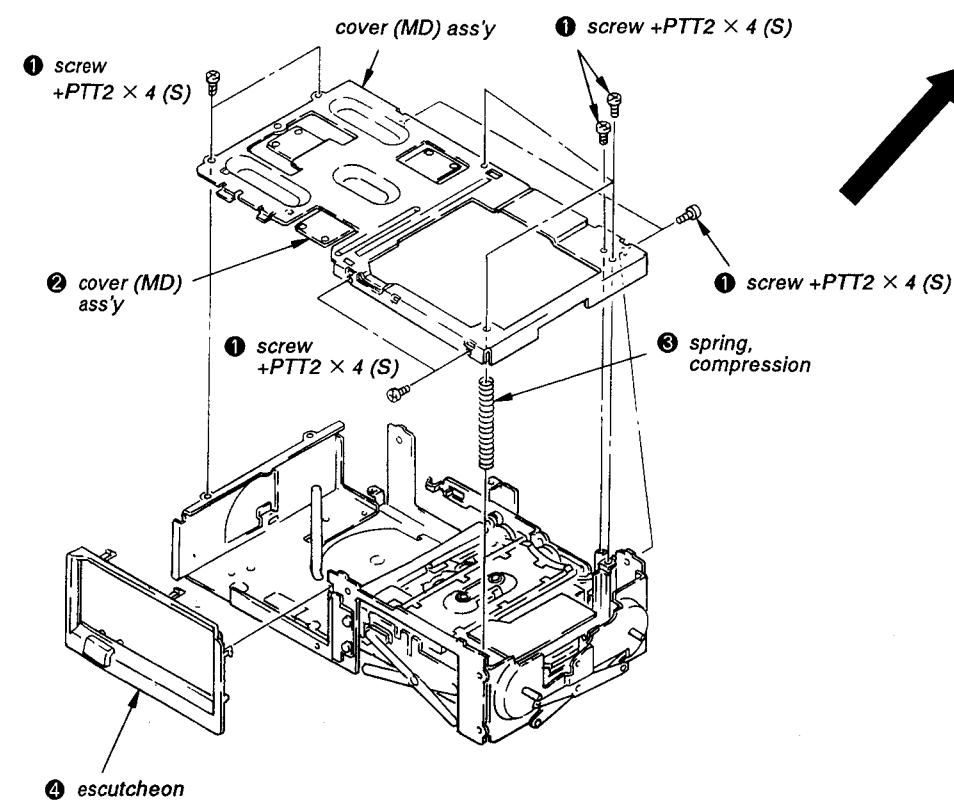
SERVO BOARD AND OPTICAL DEVICE (KSM-310A)



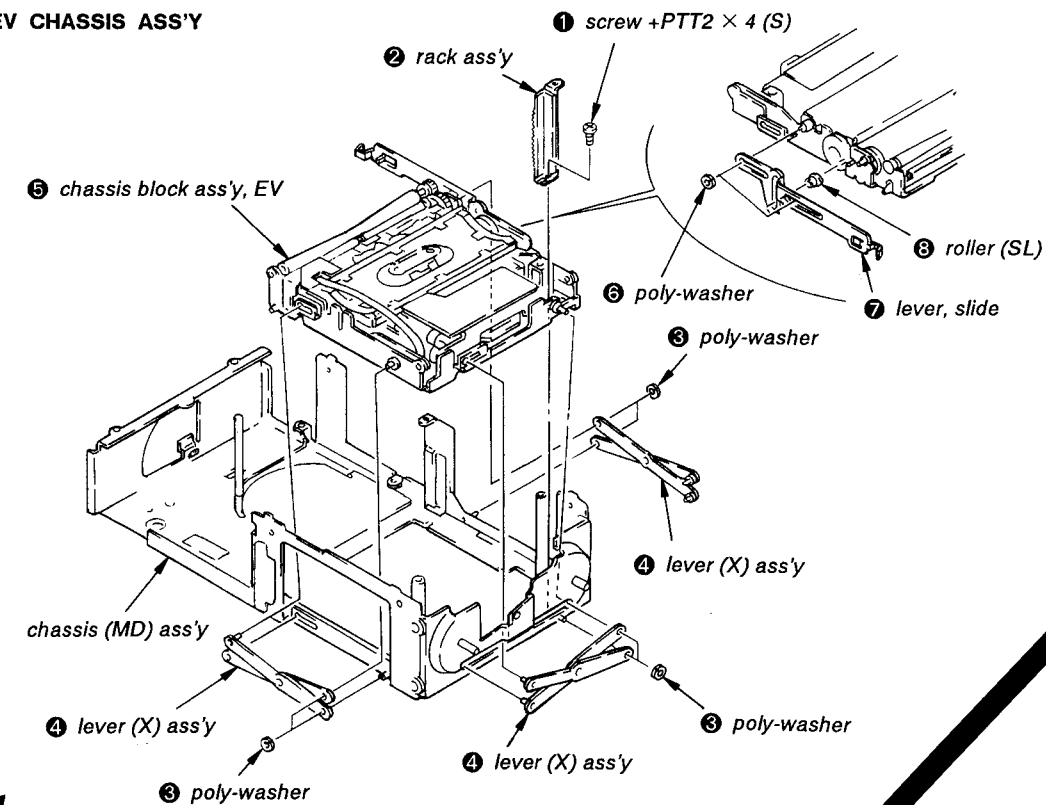
MAIN BOARD



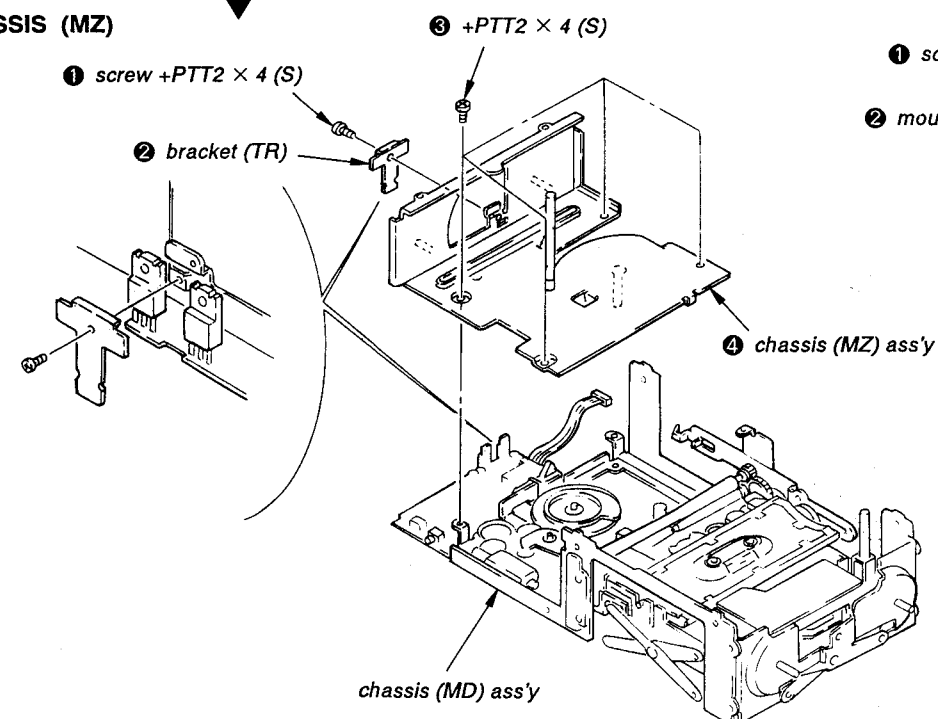
COVER (MD) ASS'Y AND ESCUTCHEON



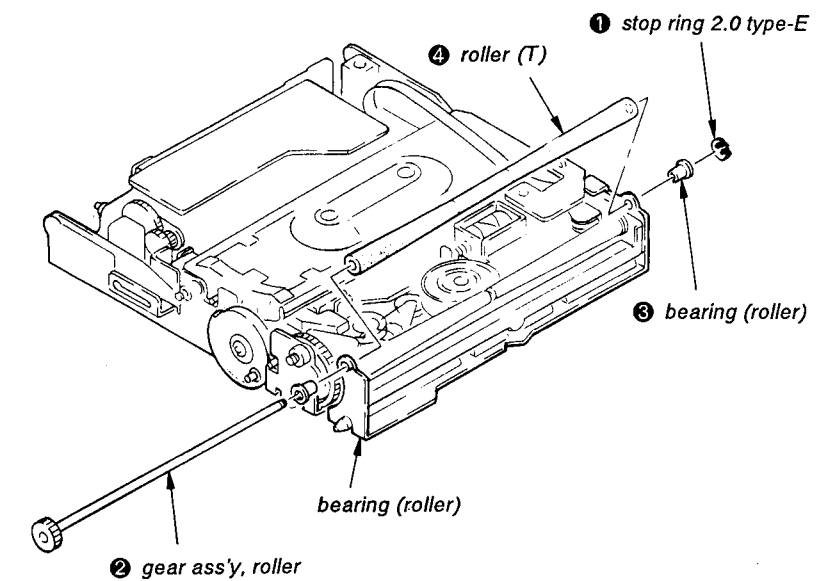
EV CHASSIS ASS'Y



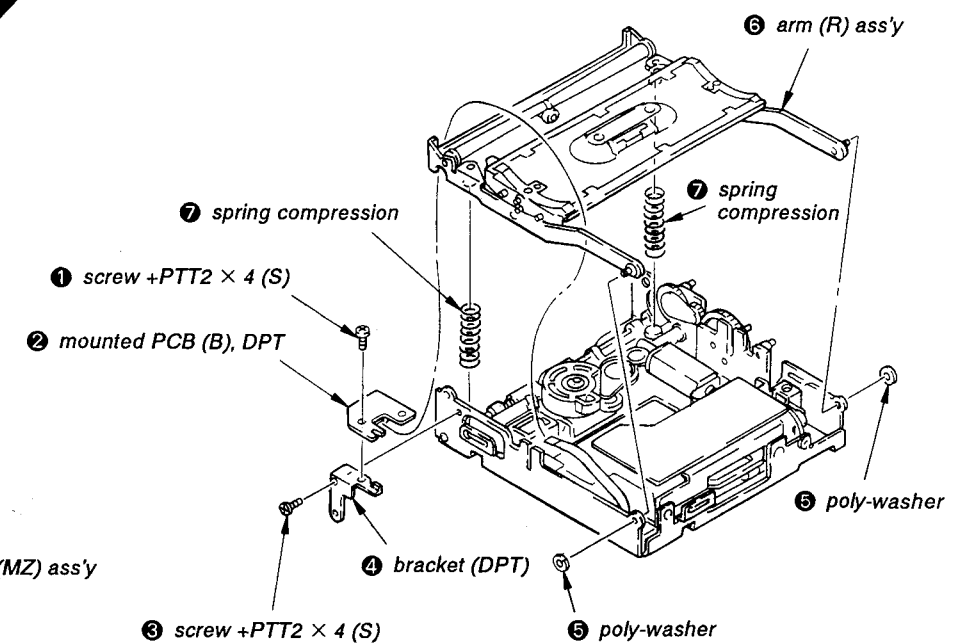
CHASSIS (MZ)



ROLLER (LOWER)



DPT BOARD AND ARM (R) ASS'Y

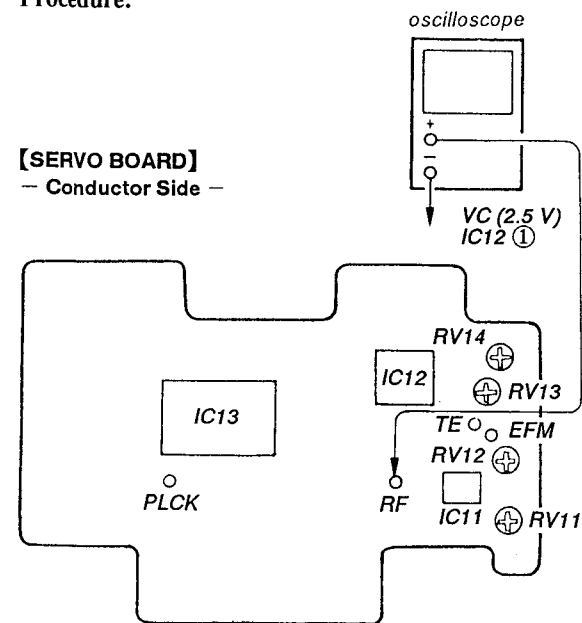


SECTION 3 ELECTRICAL ADJUSTMENTS

1. Perform adjustments as given.
2. Be sure to use the disc "YEDS-18" parts code: 3-702-101-01, but only when indicated.
3. Power supply voltage: DC14.4 V (more than 10A).

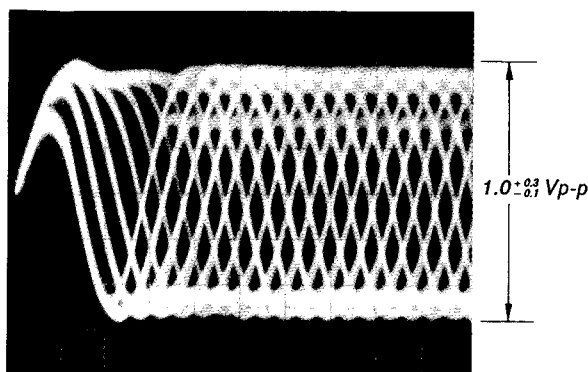
1. Focus Offset Adjustment

Procedure:



1. Connect the oscilloscope to SERVO board test point **RF**.
2. Put the set into play mode by loading the disc.
3. Adjust (SERVO board) RV12 so that the oscilloscope waveform eye pattern is good.
(A good eye pattern means that the diamond shape (◇) in the center of the oscilloscope can be clearly distinguished.)

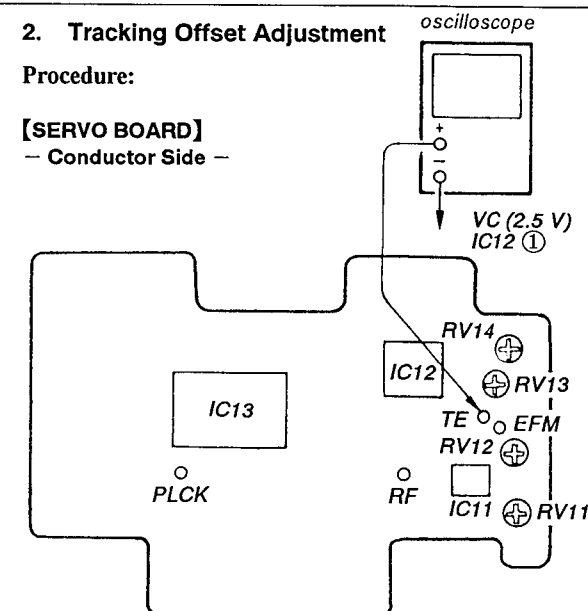
Volt/Div: 200 mV
Time/Div: 0.5 μSec



2. Tracking Offset Adjustment

Procedure:

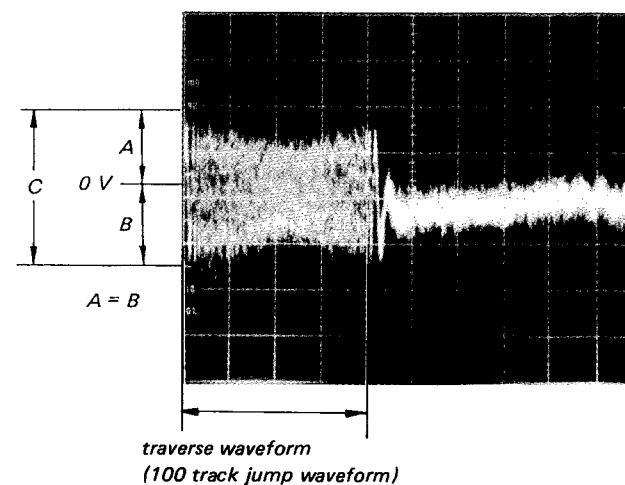
[SERVO BOARD]
— Conductor Side —



1. Connect the oscilloscope to SERVO board test point **TE**, pin ① of IC11.
2. Put the set into play mode by loading the disc.
3. Press the **AMS** button, then, check the traverse waveform*.
4. Adjust RV11 (SERVO board) so that oscilloscope reading is symmetrical in relation to 0 V.

*Traverse waveform: This is the tracking error waveform appears when crossing the track.

Volt/Div: 0.5 V
Time Div: 2 mSec
Center 0 V



3. Tracking Gain Adjustment (coarse adjustment)

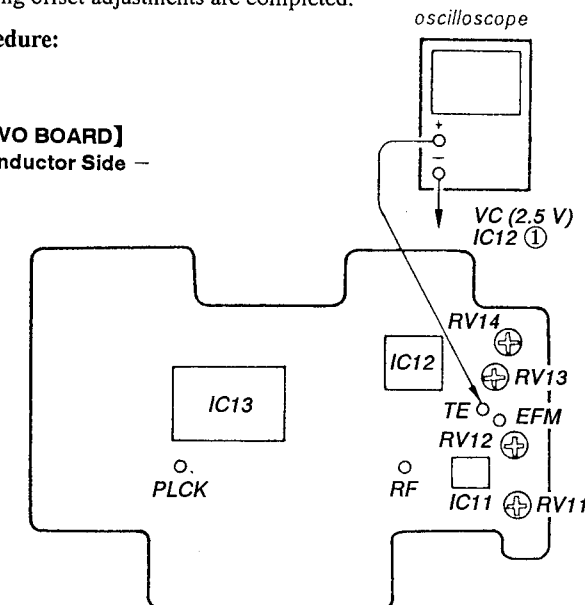
This adjustment is to be performed when replacing the following parts.

- Optical Pick-up Block
- RV13

This adjustment should be performed after focus offset and tracking offset adjustments are completed.

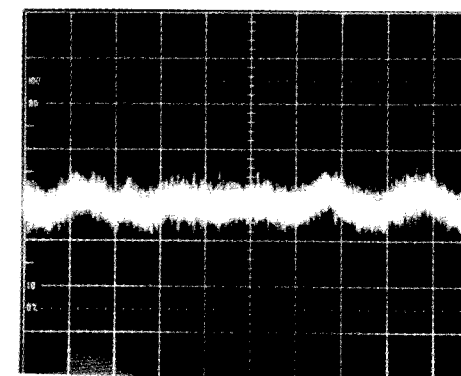
Procedure:

[SERVO BOARD]
— Conductor Side —



1. Connect the oscilloscope to SERVO board test point **TE**.
2. Put the set into play mode by loading the disc.
3. Turn SERVO board RV13 from clockwise stop, then check the oscilloscope waveform.
Fix RV13 at the position where the waveform disappears.

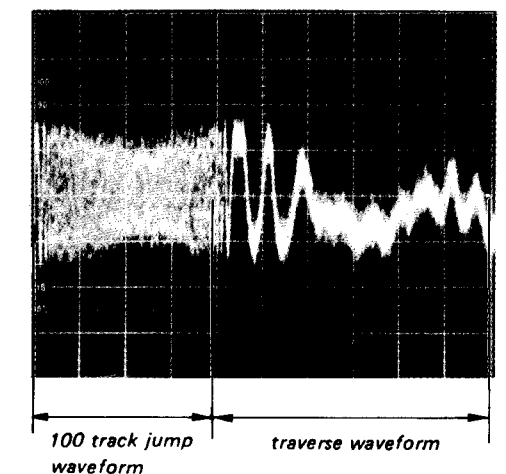
Volt/Div: 0.5 V
Time/Div: 2 mSec



waveform when the wave appears

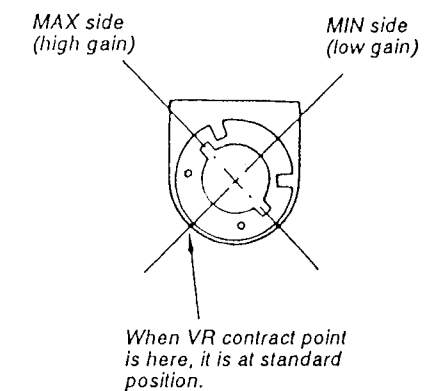
• When gain lowered...

When selecting by pressing **AMS** button, brake application is poor because of low tracking gain. Therefore, the traverse waveform appears after the 100 track jump waveform, then the selection will be located slowly.

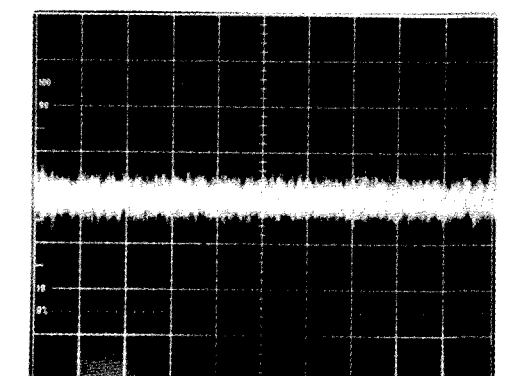


• When gain is highered...

Operation noise is heard due to a scratch or dust, then operation will be instability.



RV13 standard position



waveform when the wave disappeared

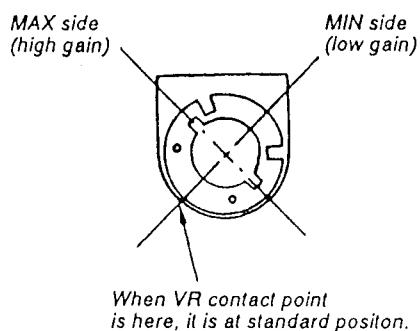
4. Focus Gain Adjustment (coarse adjustment)

This adjustment is to be performed when replacing the following parts.

- Optical Pick-up Block
- RV14

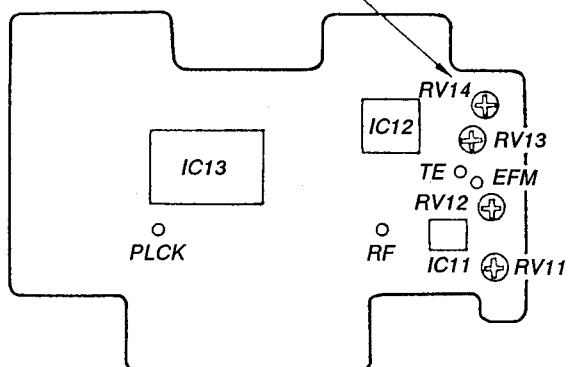
Procedure:

1. Set RV14 (SERVO board) to the standard position.
2. Check that there is not an abnormal amount of operation noise (white noise) from the 2-axis devise. If there is, turn RV14 slightly clockwise.



RV14 standard position

[SERVO BOARD]
— Conductor Side —



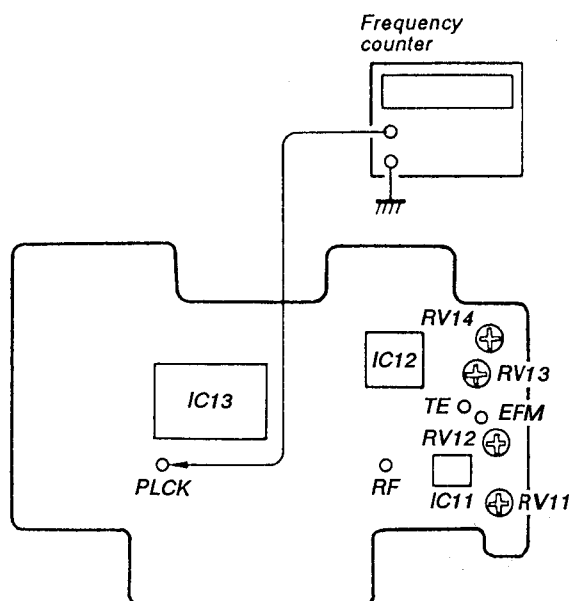
- **When gain is highered...**
The set does not play because of no focus operation.
- **When gain is highered...**
Operation noise is heard due to a scratch or a dust, then operation will be unstable.

5. PLL Freerun Frequency Check

Procedure:

1. Connect frequency counter to Pin ⑪ of IC13 (Test point PLCK).
2. Confirm the frequency is $4.3218 \text{ MHz} \pm 20 \text{ kHz}$.

[SERVO BOARD] — Conductor Side —



SECTION 4
DIAGRAMS

4-1. IC501 (BA6247N) MOTOR DRIVER IC OPERATION

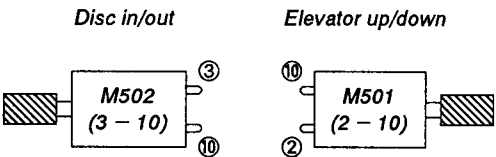
(DRIVER BOARD)

The elevator motor connected between Pin ② and Pin ⑩ of IC501 is as M501, and the disc loading/saving motor connected between Pin ③ and Pin ⑩ of IC501 is as M502.
When the IC port logic is Pin ② > Pin ⑩, Pin ③ > Pin ⑩, the rotating direction of M501 and M502 becomes normal.

ROTATION TRUTH TABLE

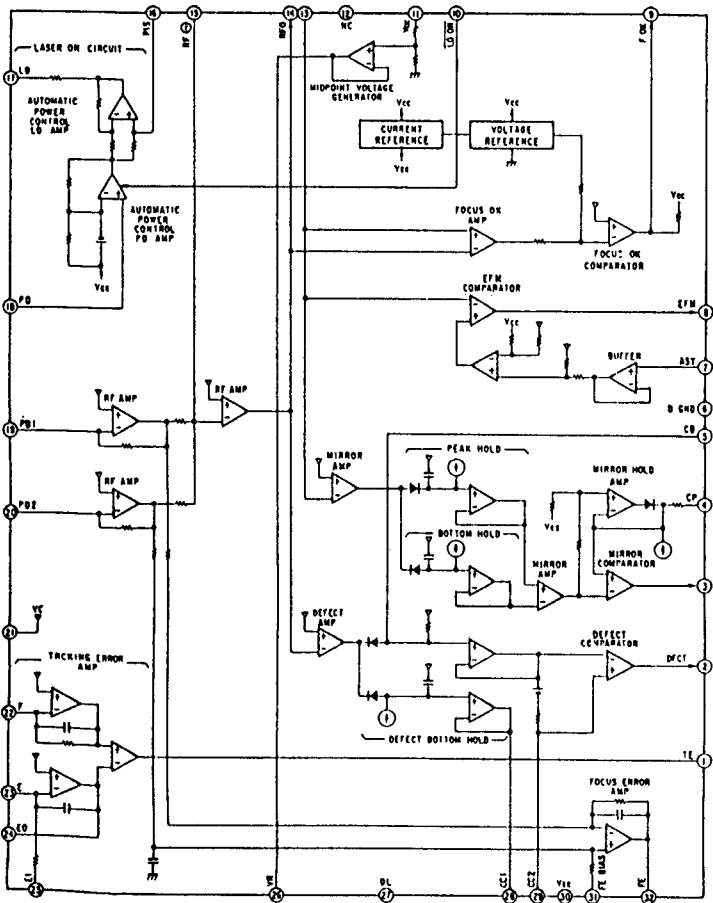
- ① When MB = MC, both M501 and M502 are stop. (MA value is free.)
- ② When MB ≠ MC:

MA Pin ⑥	MB Pin ⑤	MC Pin ④	M501	M502	Motor Terminal			Operation
					②	③	⑩	
L	L	H	Reverse	Stop	L	OPEN	H	Elevator UP
H	L	H	Normal	Stop	H	OPEN	L	Elevator DOWN
L	H	L	Stop	Reverse	OPEN	L	H	Disc load
H	H	L	Stop	Normal	OPEN	H	L	Disc save

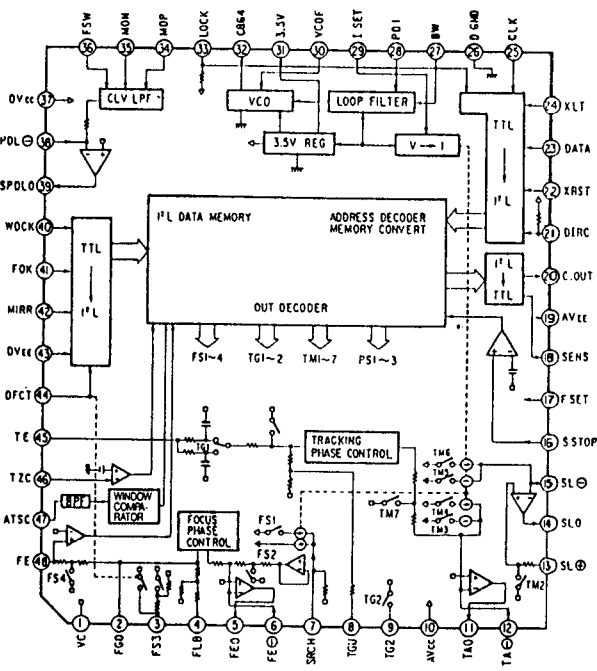


• IC Block Diagrams

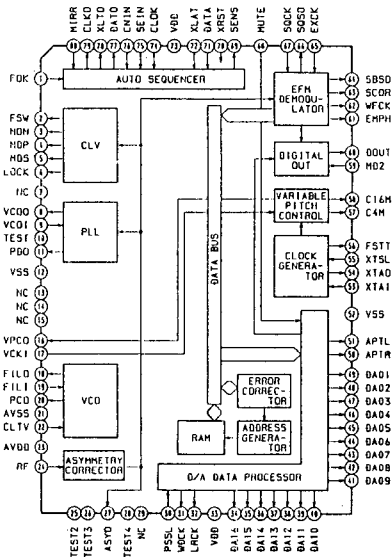
IC11 CXA1081Q



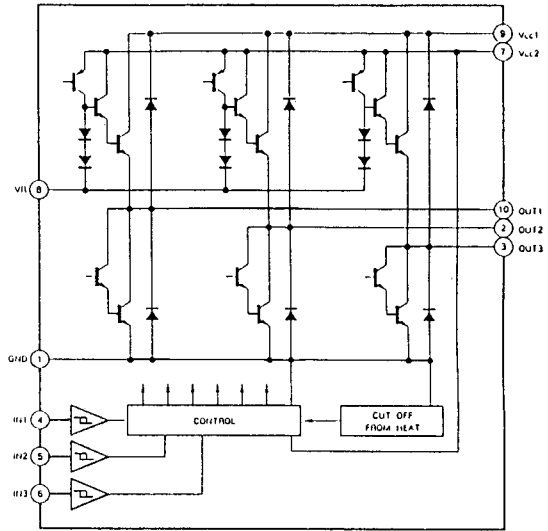
IC12 CXA1182Q-Z



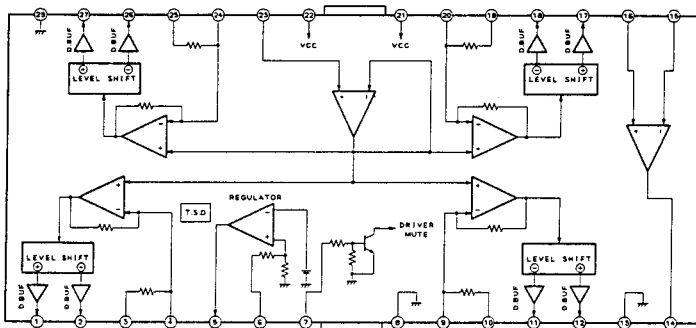
IC13 CXD2500AQ



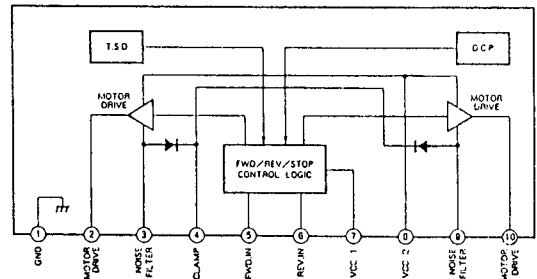
IC501 BA6247N



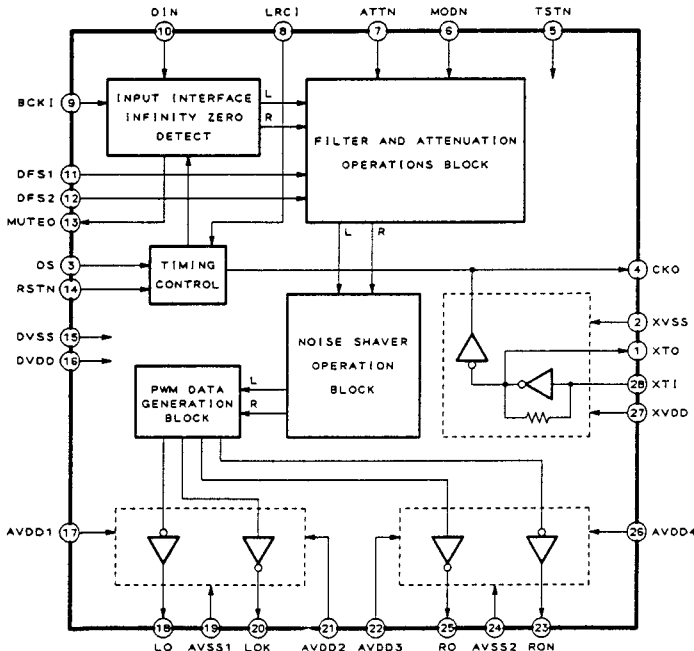
IC14 BA6296FP



IC652 LB1641

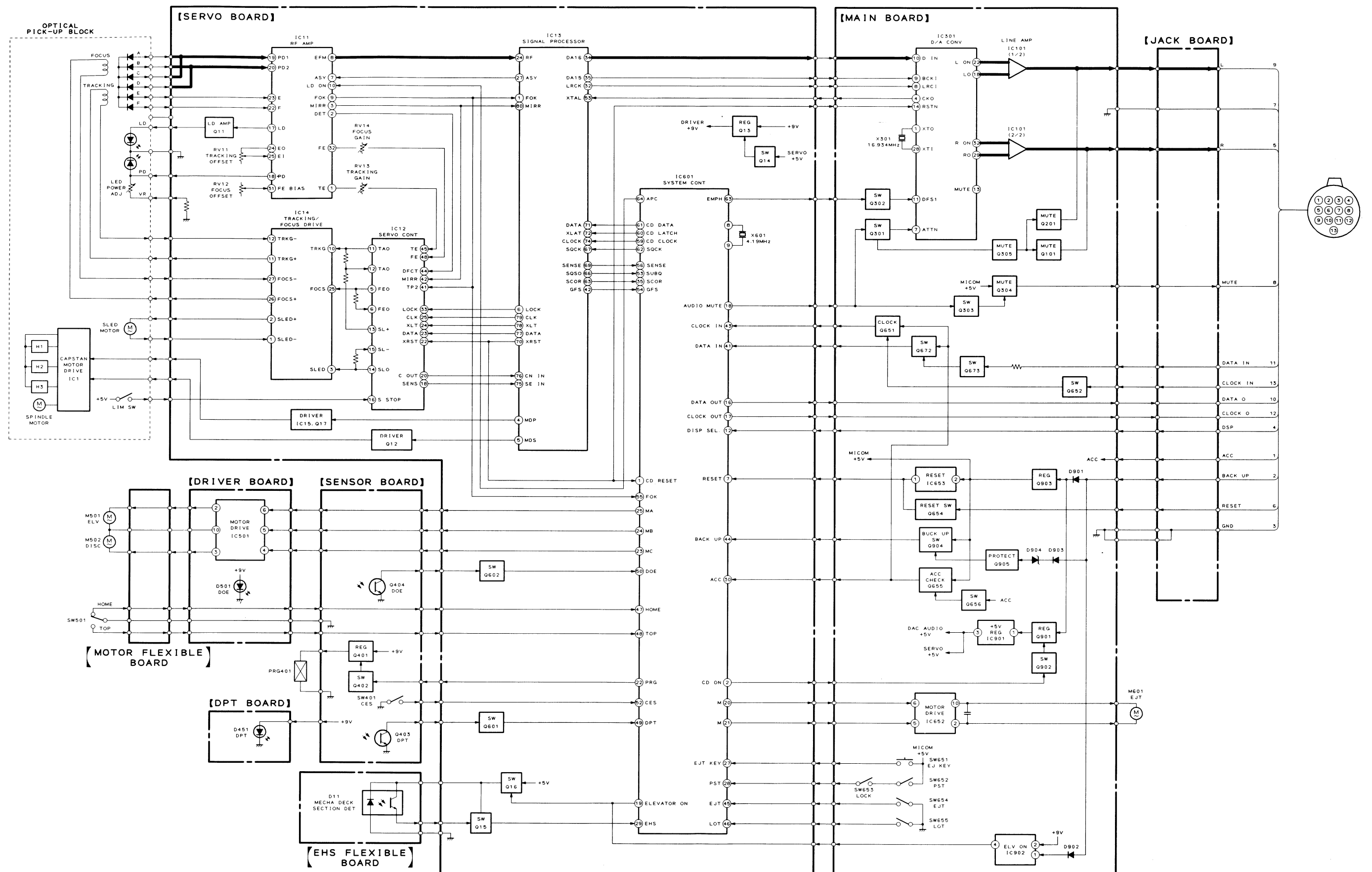


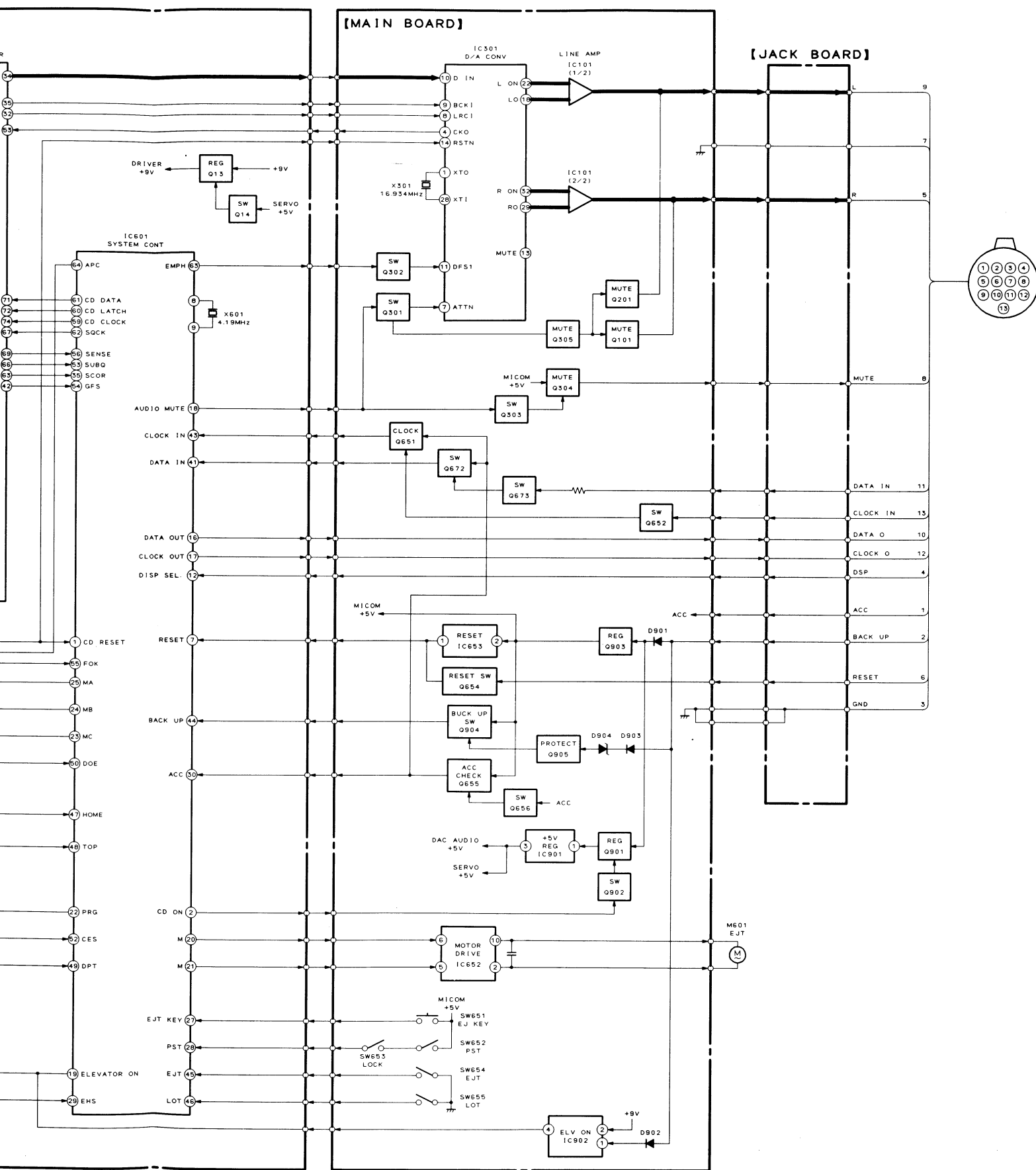
IC301 SM5871AS



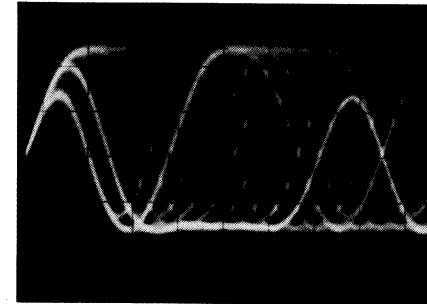
MEMO

4-2. BLOCK DIAGRAM

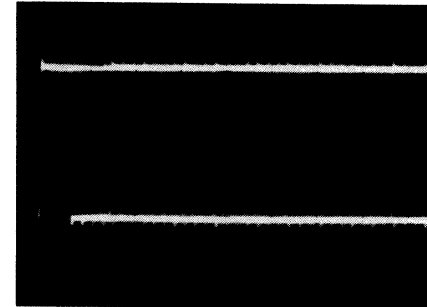




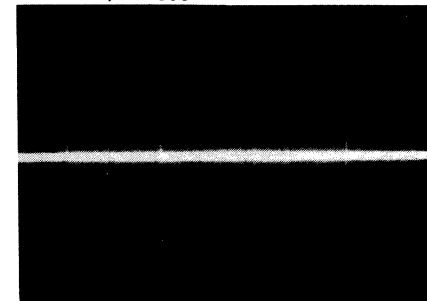
• Waveforms



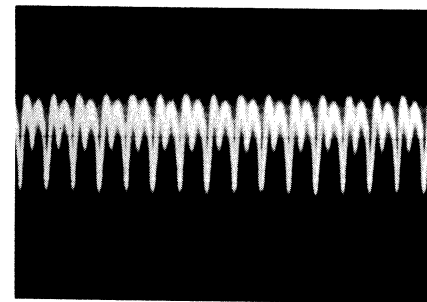
1 TP
0.2 V/div, 0.5 μ sec



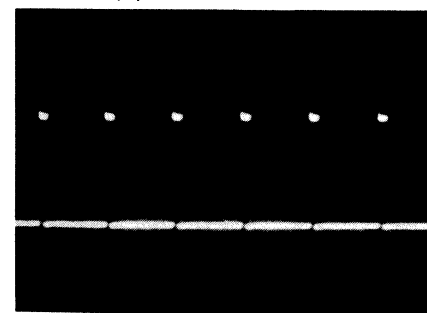
2 IC11 pin ⑧
1 V, 1 μ sec



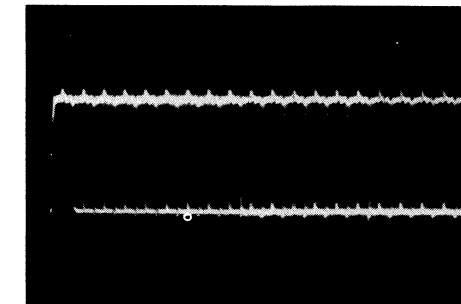
3 IC12 pin ⑫
0.1 mVp-p, 0.2 μ sec



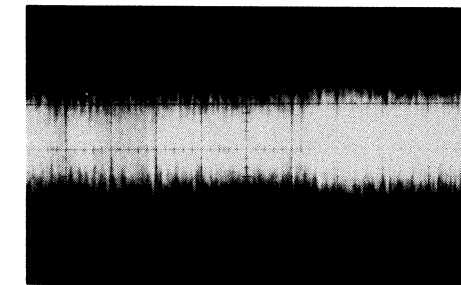
4 IC13 pin ③
0.5 Vp-p, 50 μ sec



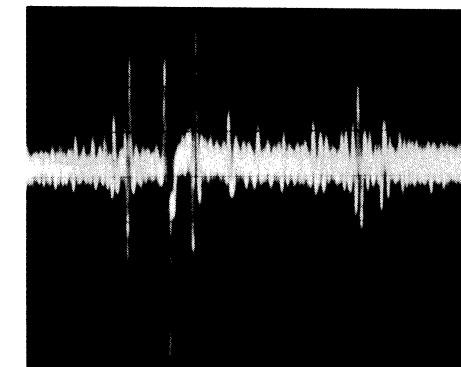
5 IC13 pin ④
2 Vp-p, 5 μ sec



6 IC301 pin ⑩
2 Vp-p, 1 msec



7 IC11 pin ①
0.2 Vp-p, 5 msec



8 IC11 pin ⑫
0.1 Vp-p, 5 msec

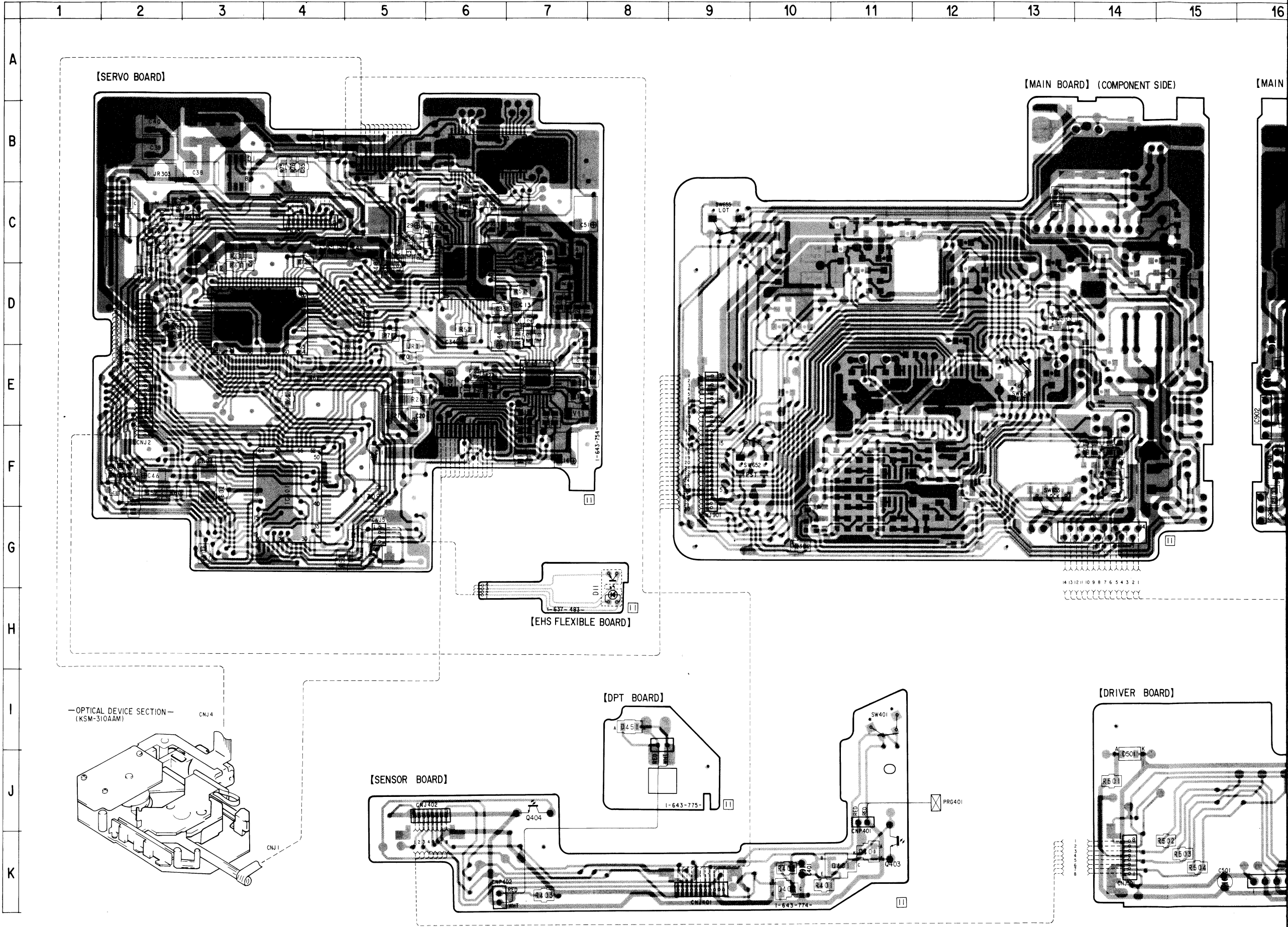
4-3. PRINTED WIRING BOARDS • See page 25 for Semiconductor Lead Layouts.

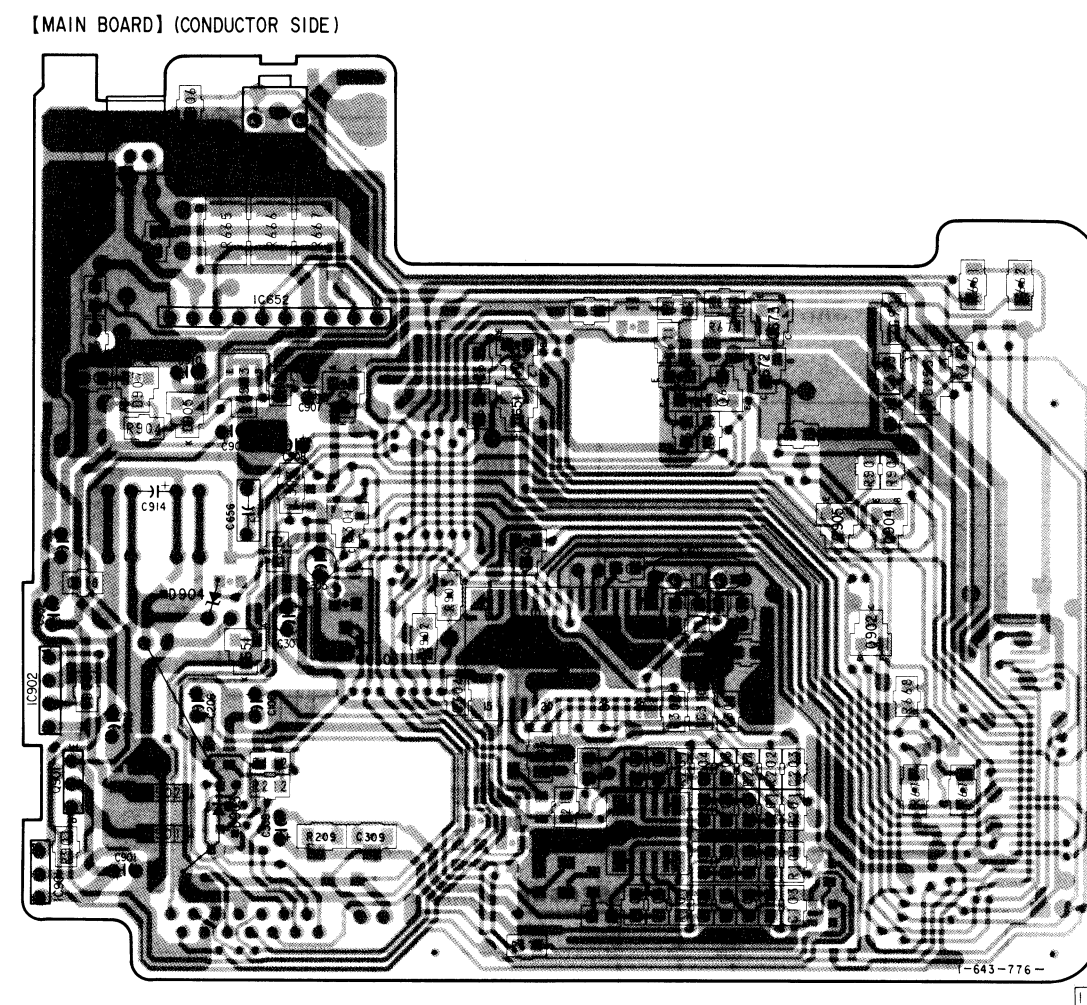
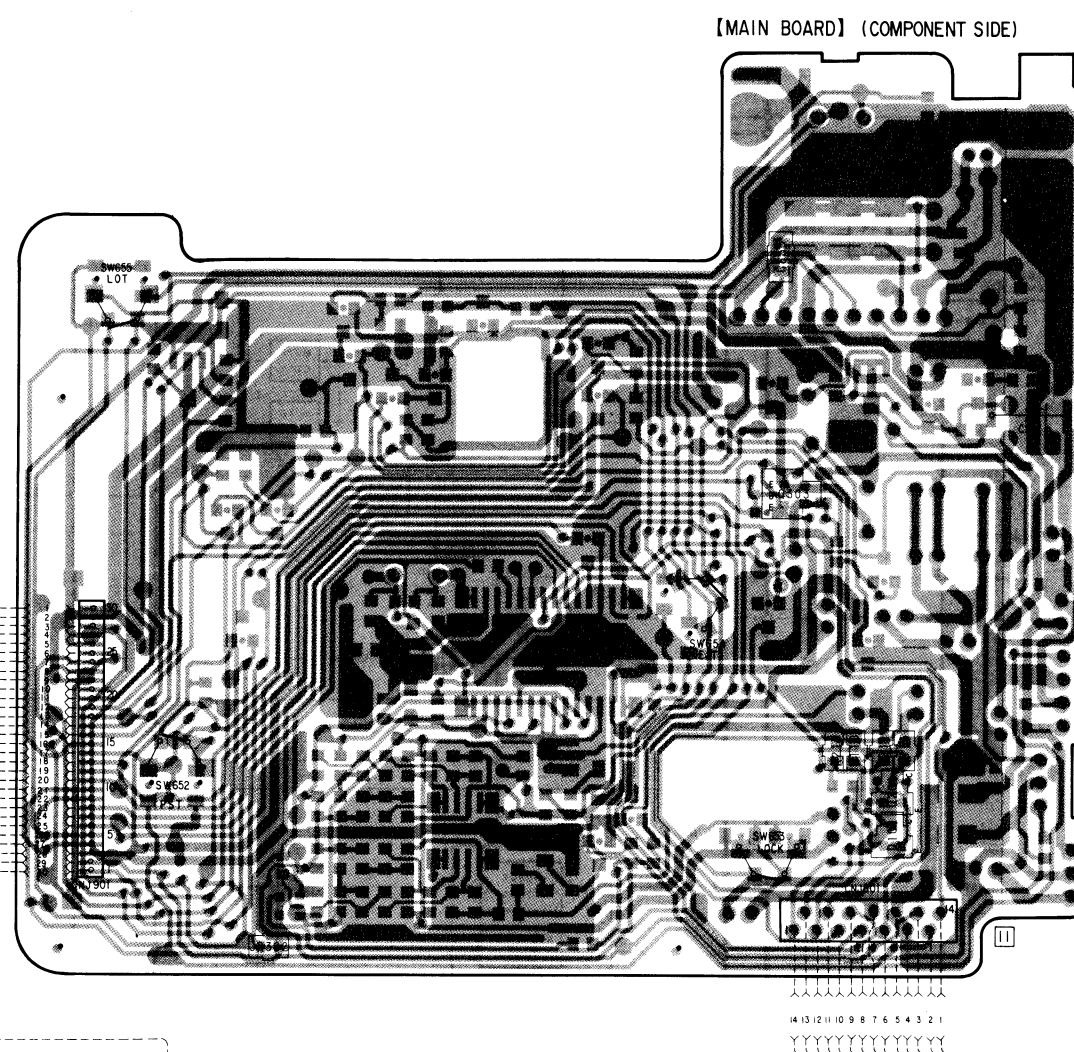
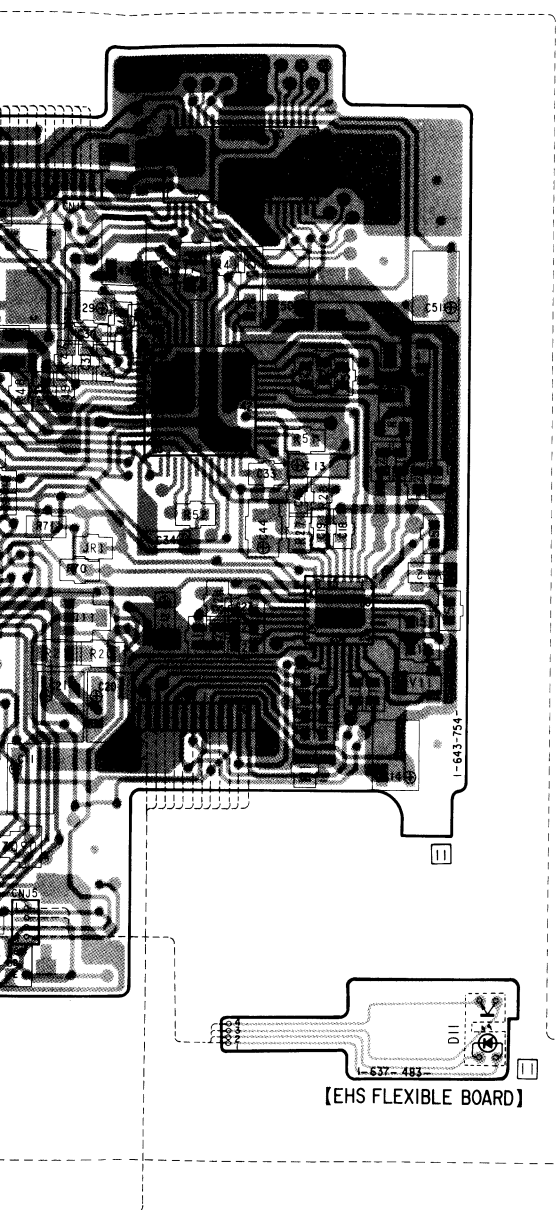
• Semiconductor Location

Ref. No.	Location
D11	H-8
D401	K-11
D451	I-8
D501	J-14
D602	F-5
D651	E-17
D901	F-17
D902	F-17
D903	F-17
D904	E-17
D905	D-17
D906	D-18
D907	D-16
IC11	E-7
IC12	D-6
IC13	D-3
IC14	B-6
IC15	B-3
IC101	F-20
IC301	E-19
IC501	K-16
IC601	F-4
IC652	C-17
IC653	C-21
IC901	G-16
IC902	E-16
Q11	E-5
Q12	B-4
Q13	C-2
Q14	D-2
Q15	G-5
Q16	F-2
Q17	C-5
Q101	F-14
Q201	F-14
Q301	D-18
Q302	E-19
Q303	D-13
Q305	E-18
Q401	K-11
Q402	K-10
Q403	K-11
Q404	J-7
Q601	C-2
Q602	C-2
Q651	D-19
Q652	C-19
Q655	D-20
Q656	D-20
Q672	C-20
Q673	C-20
Q901	F-16
Q902	E-21
Q903	D-17
Q904	D-21
Q905	D-21

Note:

- ■ : parts mounted on the conductor side.
- ● : Through hole.
- ▨ : Pattern on the side which is seen.
- ▩ : Pattern of the rear side.

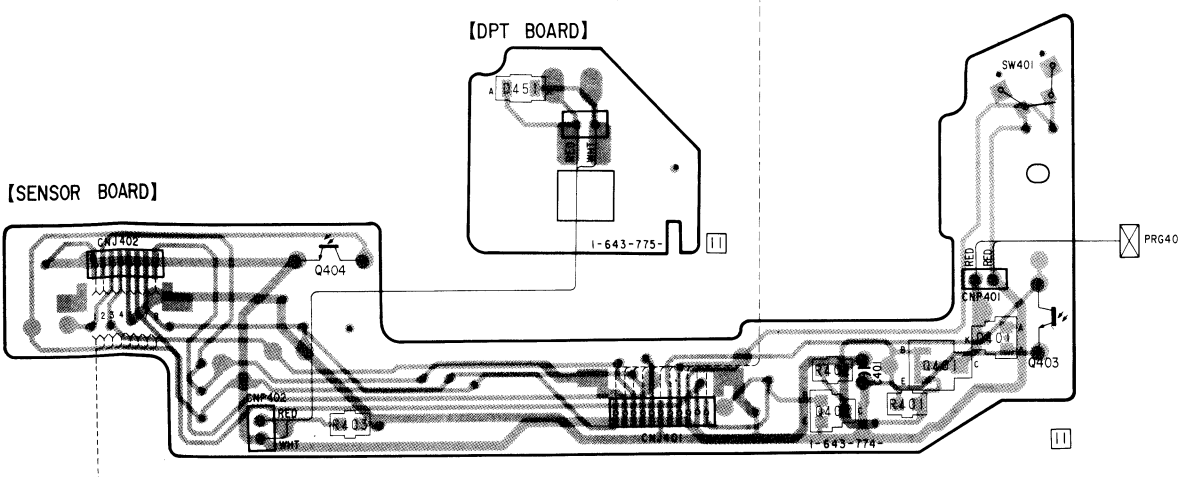




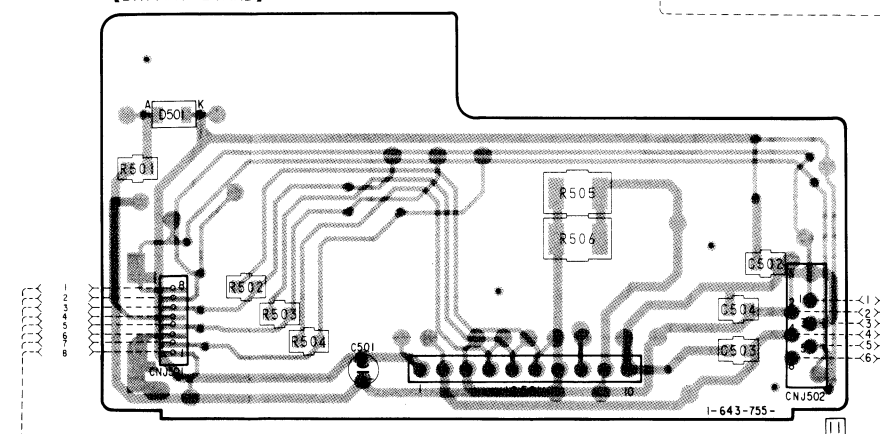
【EHS FLEXIBLE BOARD】

【DPT BOARD】

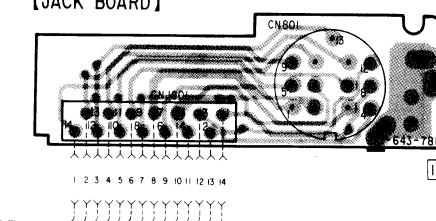
【SENSOR BOARD】



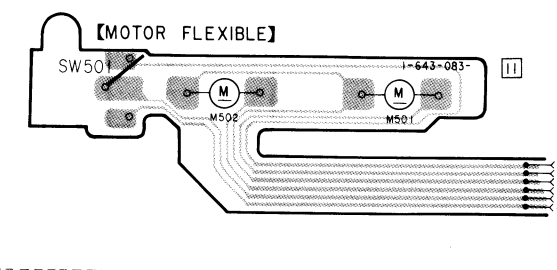
【DRIVER BOARD】

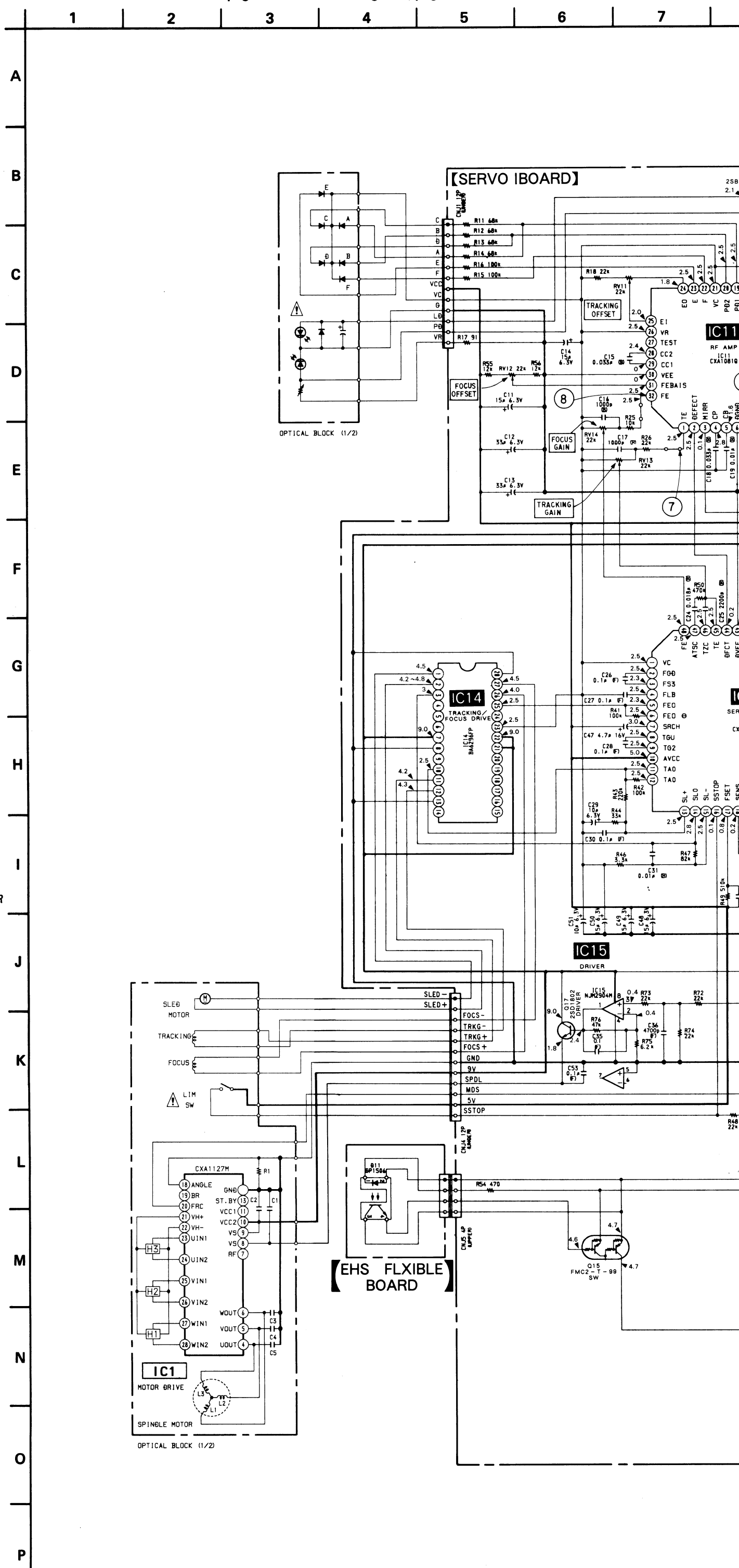


【JACK BOARD】

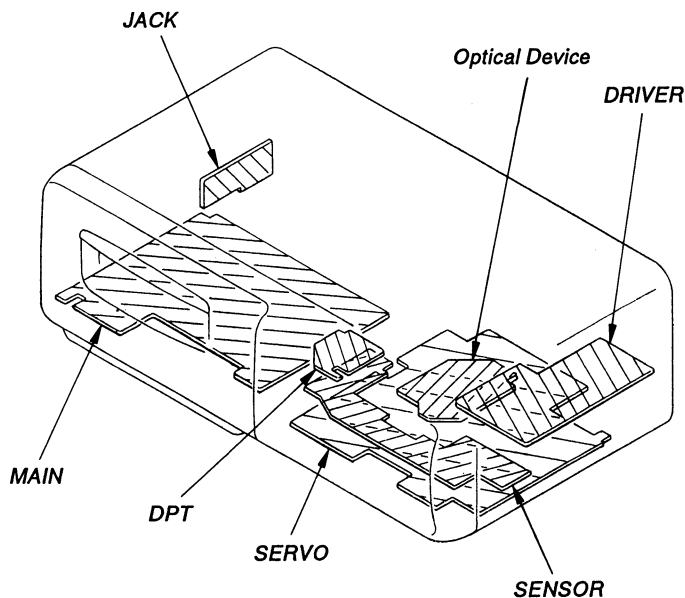


【MOTOR FLEXIBLE】





• Circuit Boards Location



Note:

- All capacitors are in μF unless otherwise noted. pF : μF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}$ W or less unless otherwise specified.

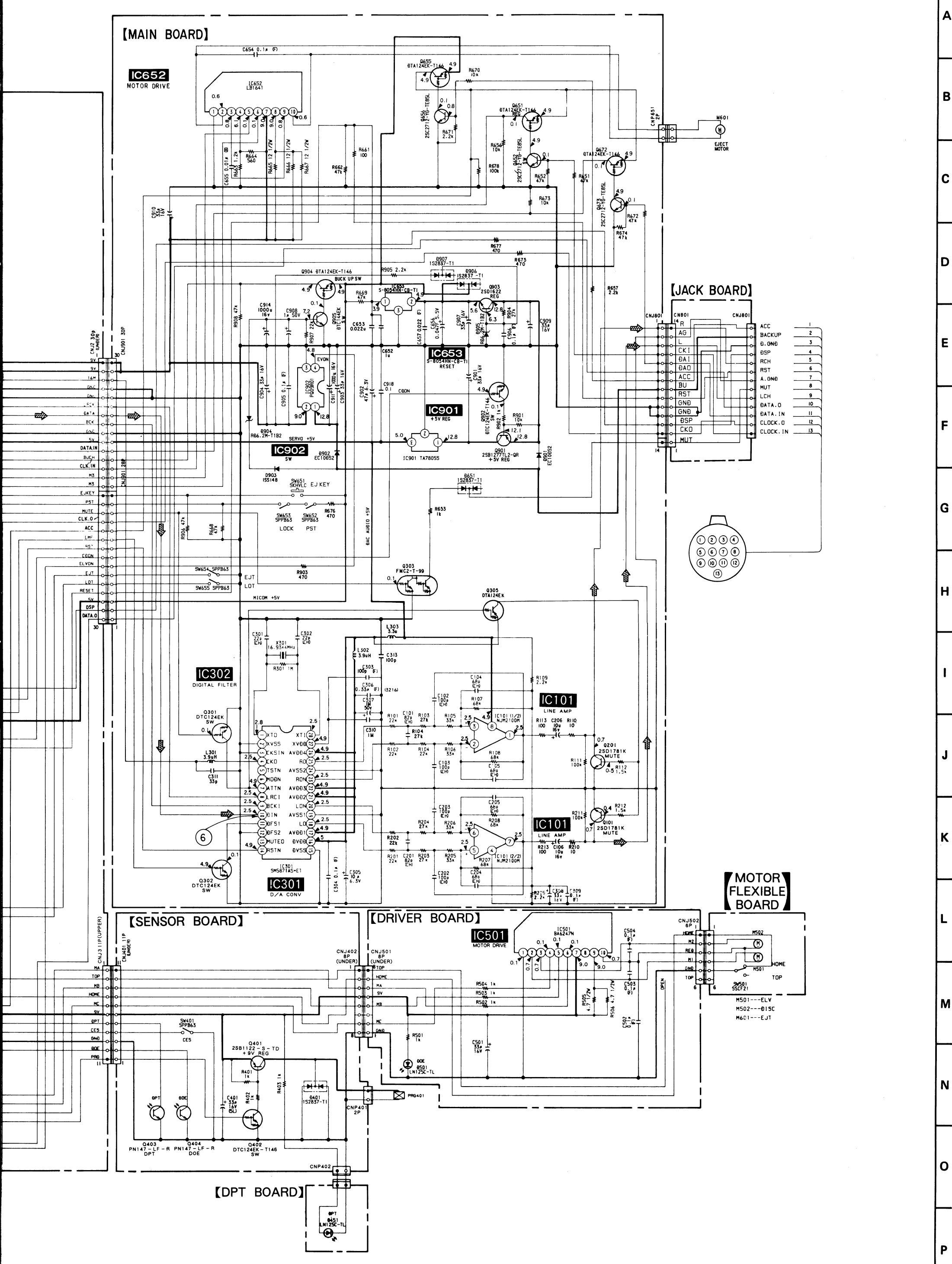
Note:

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

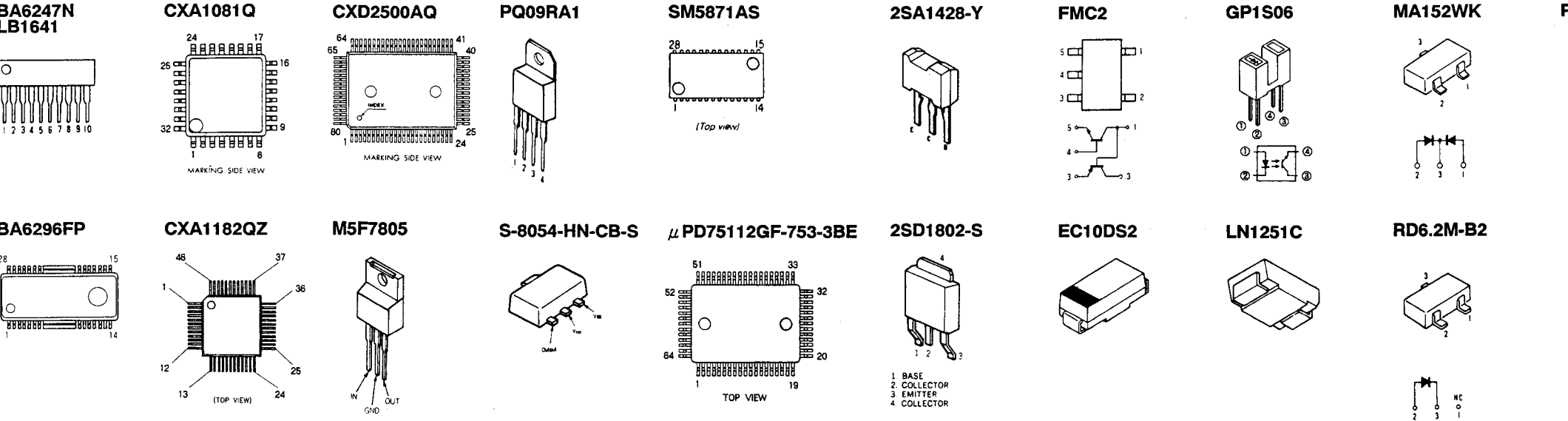
Note:

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- Δ : B + Line.
- $\square$: panel designation.
- $\square$: adjustment for repair.
- Power voltage is dc 14.4 V and fed with regulated dc power supply from CNP1.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (10 M Ω /V). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- $\Rightarrow$: CD



● Semiconductor Lead Layouts



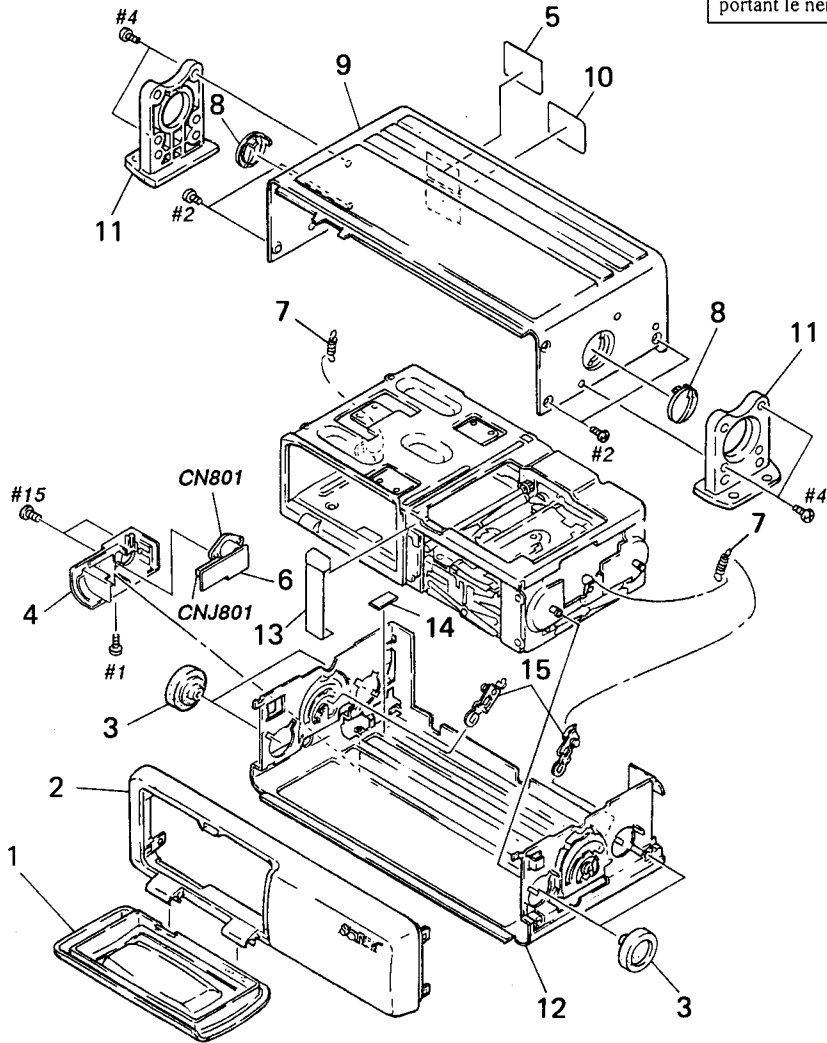
SECTION 5
EXPLODED VIEWS

- NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
 - Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
 - The mechanical parts with no reference number in the exploded views are not supplied.
 - Hardware (# mark) list is given in the last of this parts list.

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

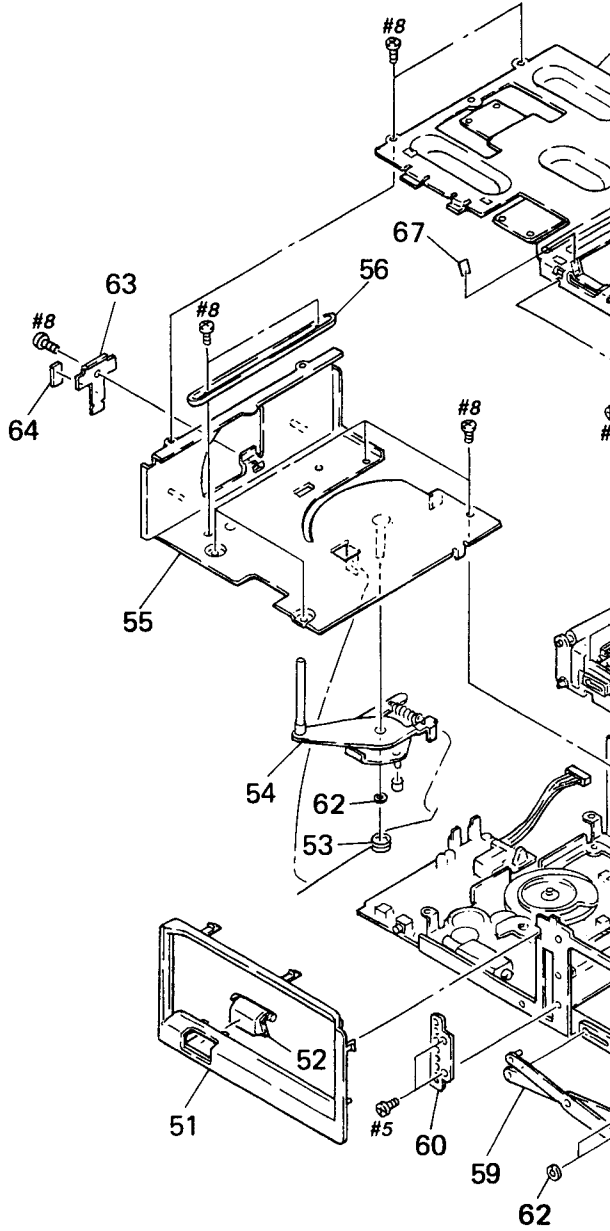
(1) CASE SECTION



Ref. No.	Part No.	Description	Remark
1	X-3364-833-1	DOOR ASSY	
2	3-375-519-21	PANEL, FRONT	
3	3-375-501-01	DAMPER (CNG)	
* 4	3-378-507-01	COVER (DIN)	
* 5	4-885-838-00	LABEL, CLASS 1 (AEP)	
* 6	1-643-781-11	JACK BOARD	
7	3-368-778-01	SPRING (FL), TENSION	
8	3-375-504-01	LEVER (SPRING)	
* 9	3-375-502-21	CASE (UPPER)	

Ref. No.	Part No.	Description	Remark
* 10	3-378-505-01	LABEL, MODEL NUMBER (US, AEP, E)	
* 10	3-378-506-01	LABEL, MODEL NUMBER (CND)	
* 10	3-378-510-01	LABEL, MODEL NUMBER (G)	
* 11	3-375-508-01	BRACKET (300)	
* 12	3-375-503-21	CASE (LOWER)	
13	3-372-331-01	SHEET (ESCUTCHEON)	
14	3-368-780-01	SHEET (BOARD)	
15	X-3364-882-1	ARM (SPRING) ASSY	

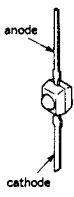
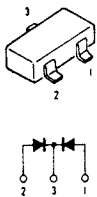
(2) MD SECTION 1



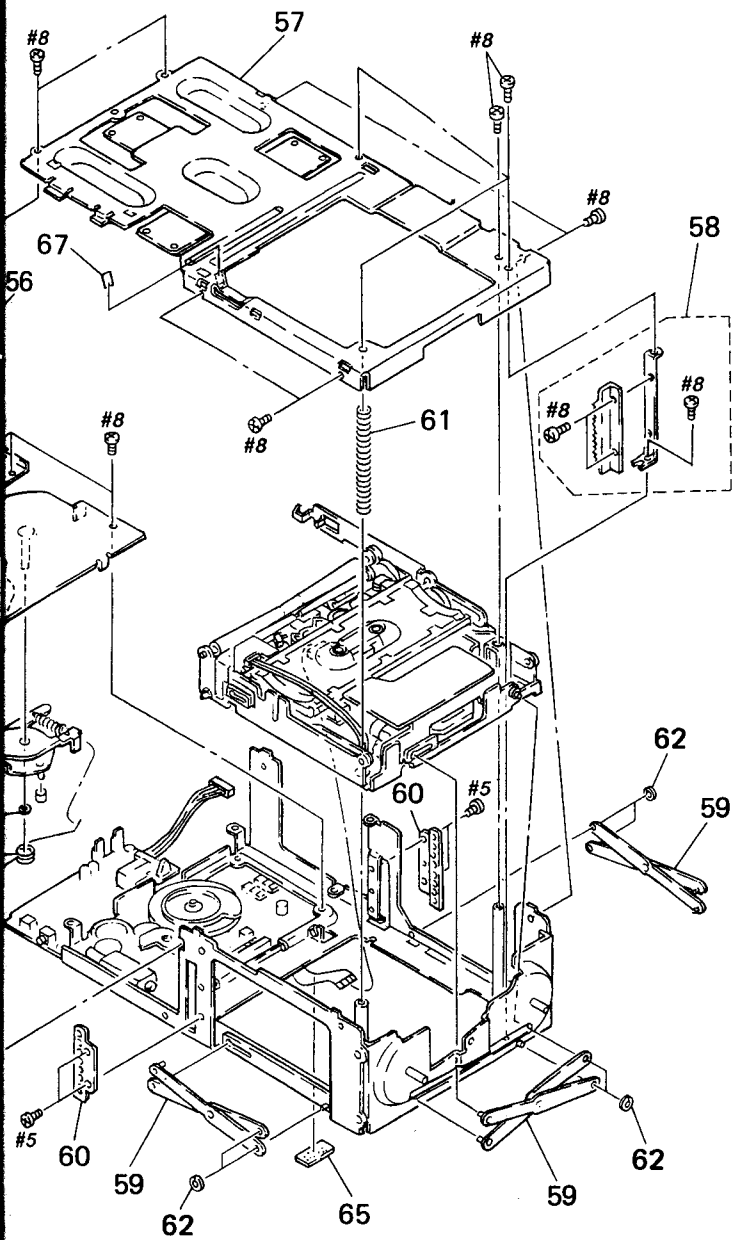
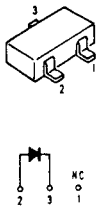
Ref. No.	Part No.	Description	Remark
* 51	3-364-436-01	ESCUTCHEON	
52	3-364-437-01	BUTTON (EJ)	
53	3-364-478-01	SPRING (EJ)	
* 54	X-3362-332-1	LEVER (EJ) ASSY	
* 55	X-3362-334-1	CHASSIS (MZ) ASSY	
* 56	3-364-434-01	GUIDE (MZ)	
* 57	X-3362-347-1	COVER (MD) ASSY	
58	X-3362-488-1	RACK ASSY	
* 59	X-3362-348-1	LEVER (X) ASSY	

MA152WK

RN147-LF-R

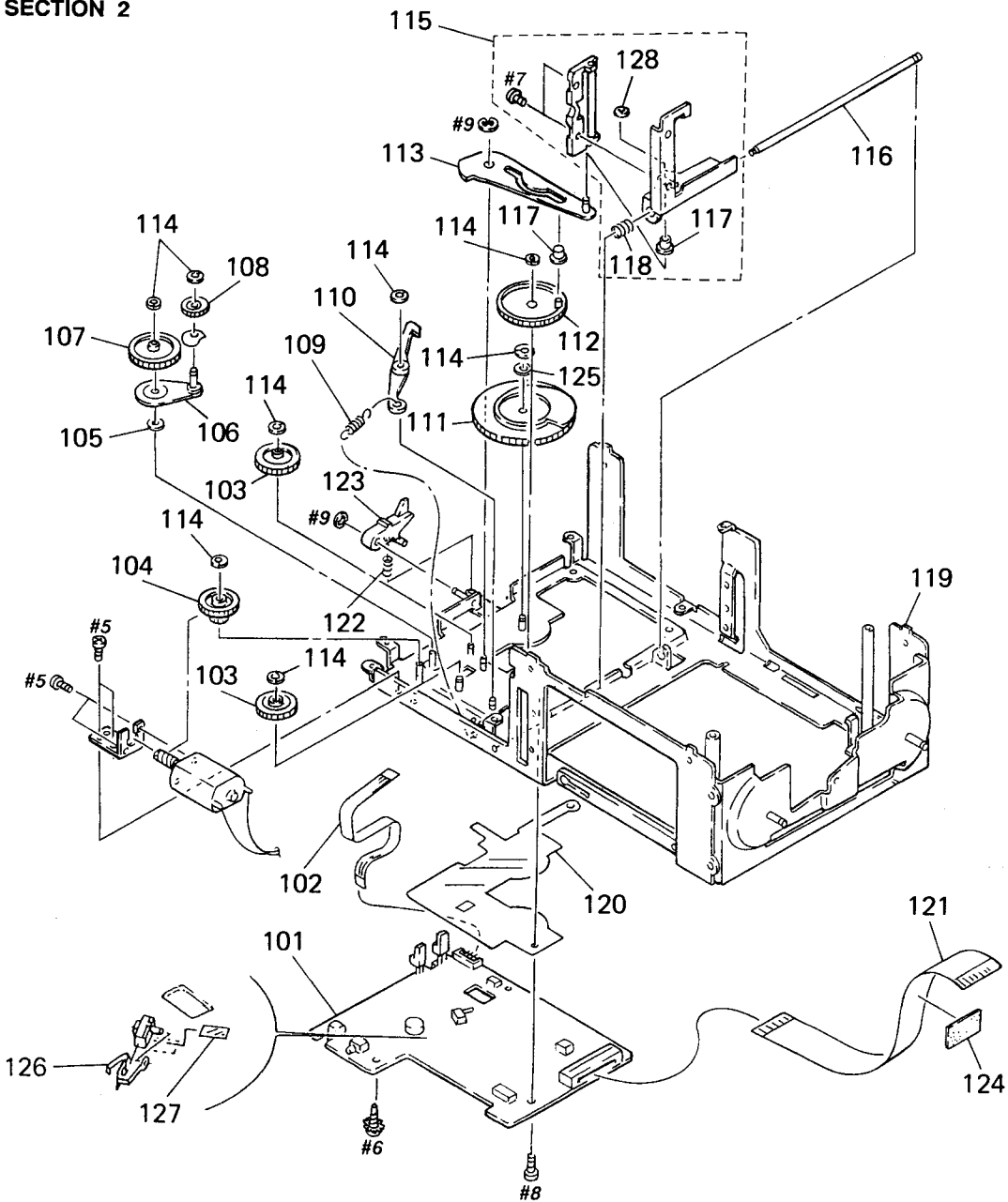


RD6.2M-B2



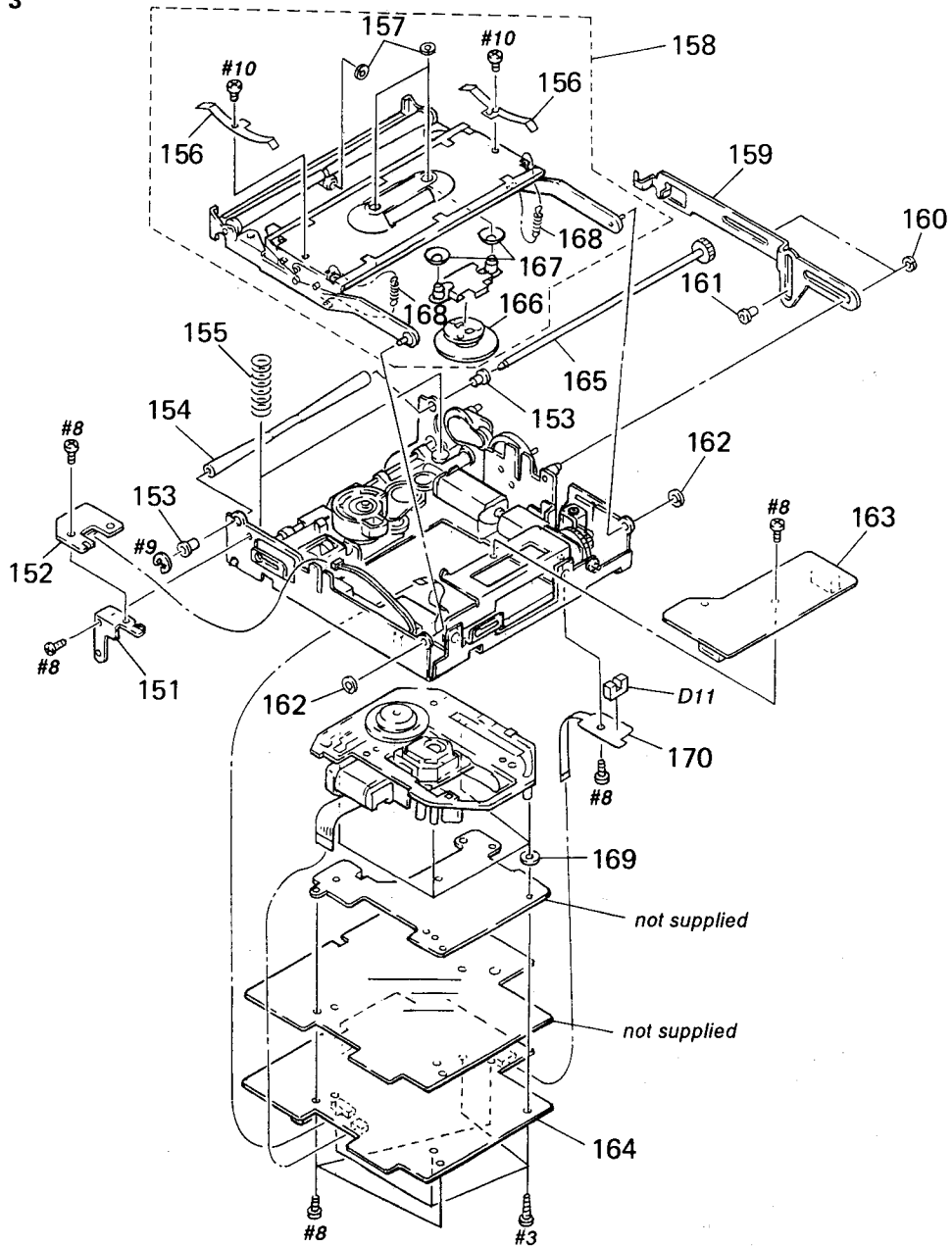
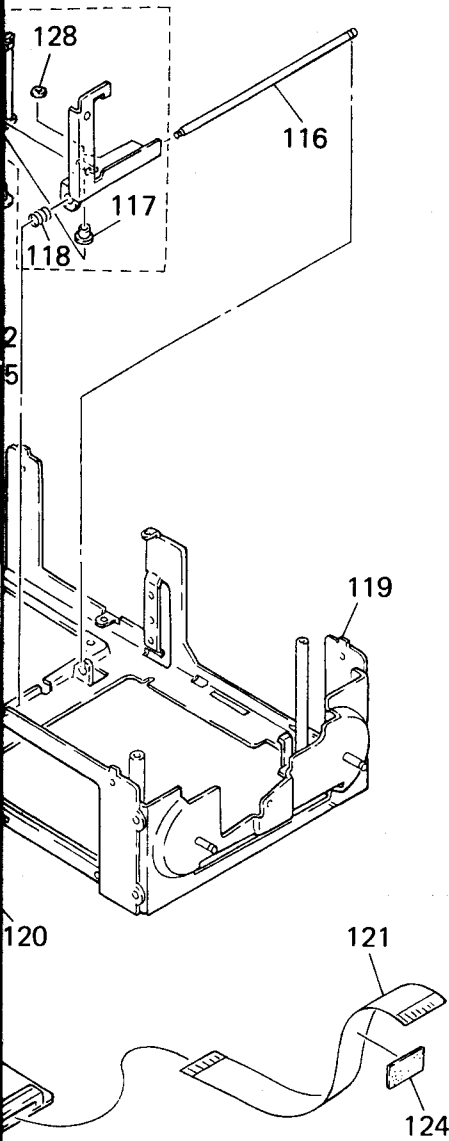
Remark	Ref. No.	Part No.	Description
	* 60	3-364-427-01	CATCHER
	61	3-370-364-01	SPRING, COMPRESSION
	62	3-377-719-01	WASHER, POLYETHYLENE
	* 63	3-364-410-03	BRACKET (TR)
	* 64	3-379-096-01	CUSHION (BRACKET)
	65	9-911-844-XX	CUSHION, BATTERY
	* 67	3-346-962-01	CUSHION (EJ)

(3) MD SECTION 2



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description
* 101	A-3273-951-A	MOUNTED PCB (B), MAIN		* 115	X-3362-324-1	SLIDER (DR) ASSY
102	1-642-838-11	JACK FLEXIBLE BOARD		* 116	3-364-502-01	SHAFT (SDR)
103	3-364-420-01	GEAR (M)		117	3-364-506-01	ROLLER (SL)
104	3-364-413-01	WHEEL (B), WORM		118	3-568-315-01	SPRING, COMPRESSION
105	3-701-437-01	WASHER		* 119	X-3362-331-1	CHASSIS (MD) ASSY
106	X-3362-342-1	LEVER (KRA) ASSY		* 120	3-368-567-01	SHEET (MD), INSULATING
107	3-364-417-01	GEAR (L)		121	1-639-551-11	EV FLEXIBLE BOARD
108	3-364-422-01	GEAR (K)		122	3-370-385-01	SPRING, COMPRESSION
109	3-531-866-01	SPRING, TENSION		* 123	3-364-431-01	LEVER (MZ LOCK)
110	3-364-433-01	STOPPER (DR)		124	9-911-844-XX	CUSHION, BATTERY
111	3-364-411-01	GEAR (EJ), CAM		125	3-373-013-01	SPRING (EJ CAM)
112	3-364-432-01	GEAR (DR)		126	3-374-512-01	SPRING (SW)
* 113	X-3362-329-1	LEVER (DR) ASSY		* 127	4-920-366-01	SPACER (S)
114	3-377-719-01	WASHER, POLYETHYLENE		128	3-379-490-01	WASHER, POLYETHYLENE

(4) MD SECTION 3

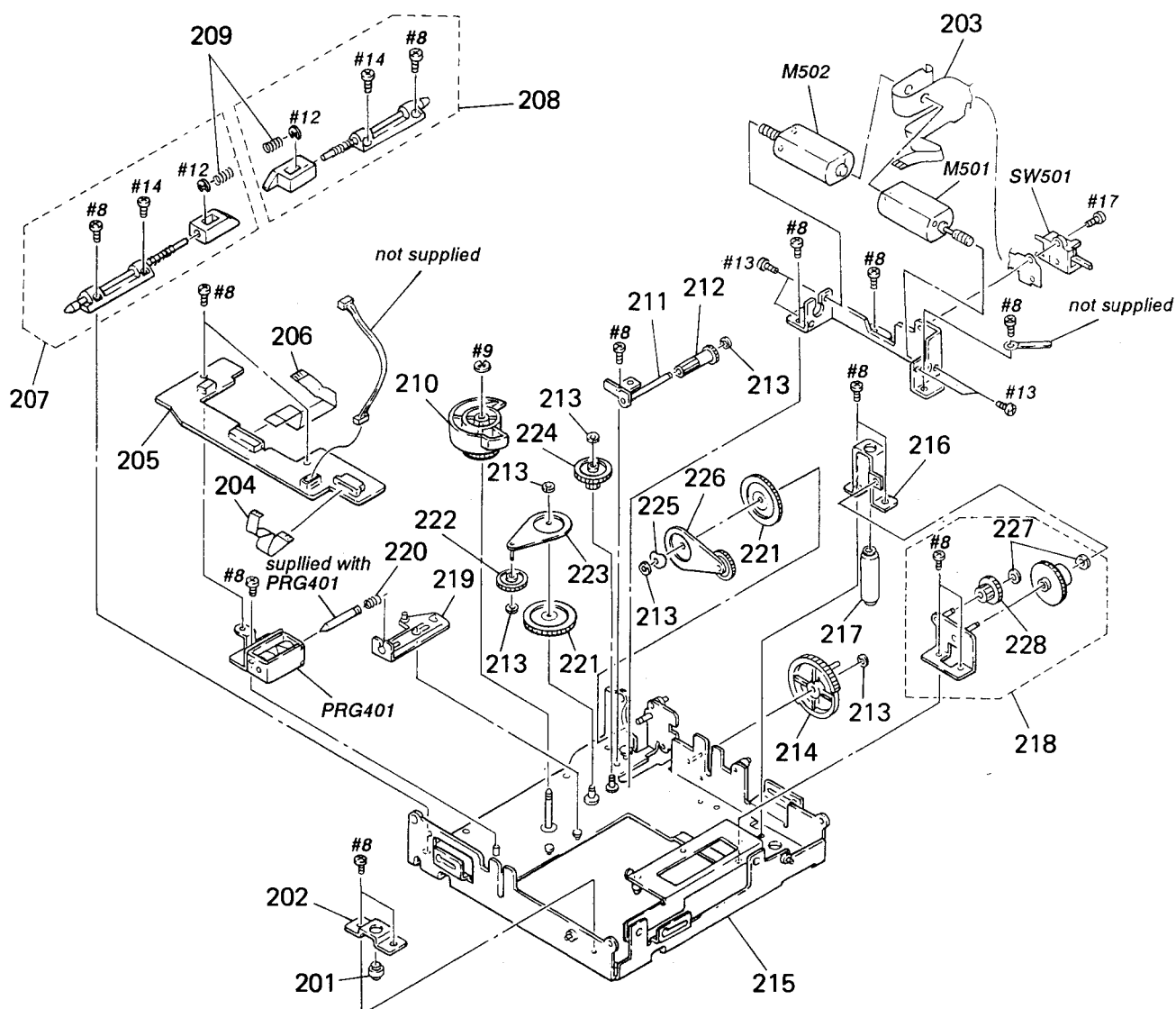


Ref. No.	Part No.	Description	Remark
* 115	X-3362-324-1	SLIDER (DR) ASSY	
* 116	3-364-502-01	SHAFT (SDR)	
117	3-364-506-01	ROLLER (SL)	
118	3-568-315-01	SPRING, COMPRESSION	
* 119	X-3362-331-1	CHASSIS (MD) ASSY	
* 120	3-368-567-01	SHEET (MD), INSULATING	
121	1-639-551-11	EV FLEXIBLE BOARD	
122	3-370-385-01	SPRING, COMPRESSION	
* 123	3-364-431-01	LEVER (MZ LOCK)	
124	9-911-844-XX	CUSHION, BATTERY	
125	3-373-013-01	SPRING (EJ CAM)	
126	3-374-512-01	SPRING (SW)	
* 127	4-920-366-01	SPACER (S)	
128	3-379-490-01	WASHER, POLYETHYLENE	

Ref. No.	Part No.	Description	Remark
* 151	3-368-565-01	BRACKET (DPT)	
* 152	1-643-775-11	DPT BOARD	
153	3-364-421-01	BEARING (ROLLER)	
154	3-377-484-01	ROLLER (T)	
155	3-364-508-01	SPRING, COMPRESSION	
156	3-364-391-01	SPRING (DH)	
157	3-701-436-11	WASHER, STOPPER	
* 158	X-3362-336-1	ARM (R) ASSY	
* 159	3-364-380-01	LEVER, SLIDE	
160	3-377-720-01	WASHER, POLYETHYLENE	
161	3-364-506-01	ROLLER (SL)	

Ref. No.	Part No.	Description	Remark
162	3-377-719-01	WASHER, POLYETHYLENE	
* 163	1-643-755-11	DRIVER BOARD	
* 164	A-3273-950-A	MOUNTED PCB (A), SERVO	
165	X-3362-345-1	GEAR ASSY, ROLLER	
* 166	X-3363-033-1	PLATE (1) ASSY, CHUCK	
167	3-329-553-01	SPRING, E	
168	3-371-504-01	SPRING, TENSION	
* 169	3-360-121-31	SPACER (W)	
170	1-637-483-11	EHS FLEXIBLE BOARD	
D11	8-719-988-47	DIODE GR1S06	

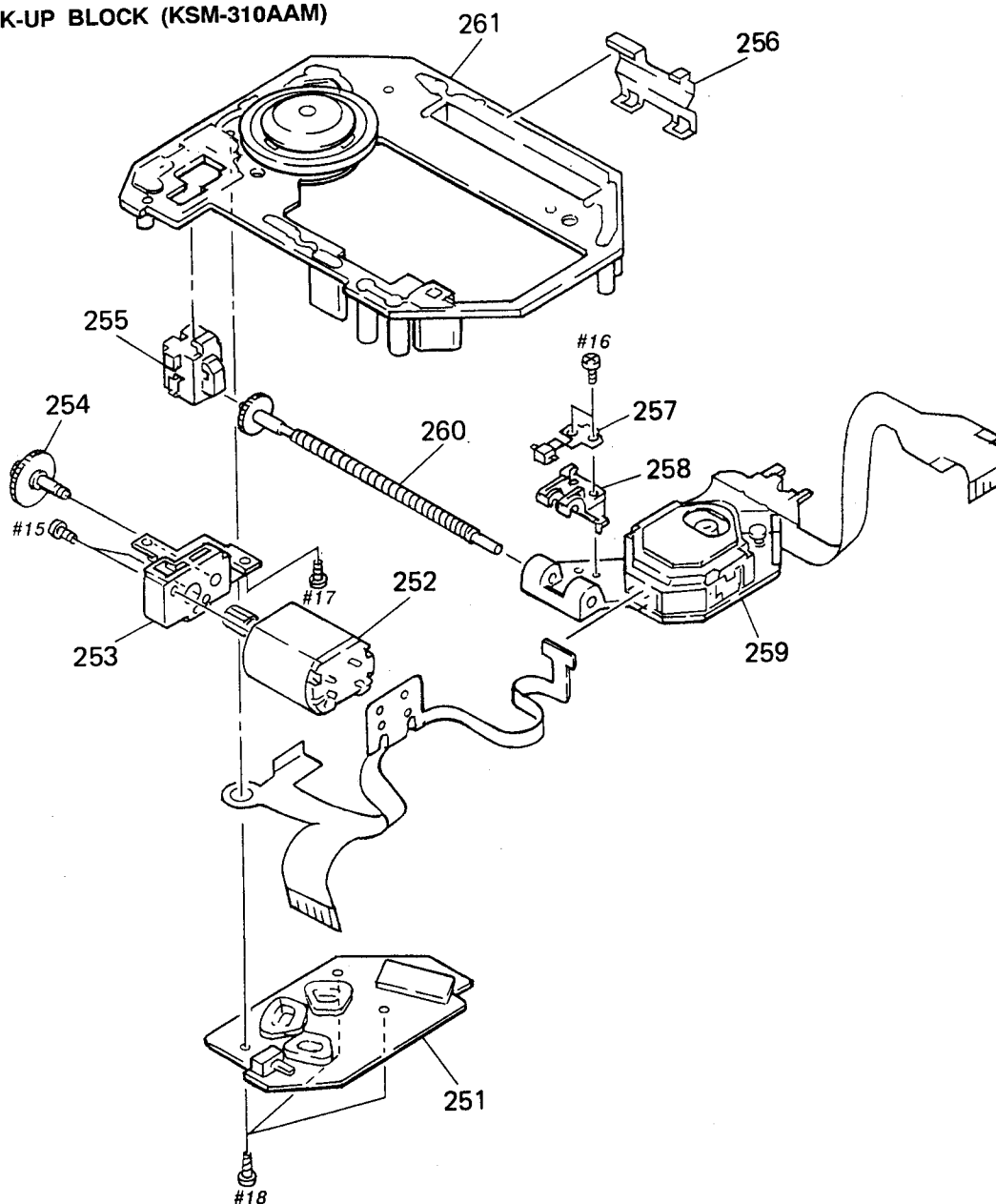
(5) MD SECTION 4



Ref. No.	Part No.	Description	Remark
* 201	3-364-401-01	BRACKET (BEARING B)	
* 202	3-370-363-01	BEARING (EV2)	
203	1-643-083-11	MOTOR FLEXIBLE BOARD	
204	1-642-972-11	DRIVER FLEXIBLE BOARD	
* 205	1-643-774-11	SENSOR BOARD	
206	1-642-931-11	SENSOR FLEXIBLE BOARD	
207	X-3362-486-1	LOCK (B) ASSY	
208	X-3362-487-1	LOCK (F) ASSY	
209	3-308-717-00	SPRING, COMPRESSION	
210	3-364-419-01	GEAR (R), CAM	
211	X-3362-343-1	BRACKET (WWR) ASSY	
212	3-364-416-01	WHEEL (R), WORM	
213	3-377-719-01	WASHER, POLYETHYLENE	
214	3-364-418-01	GEAR (SL)	
* 215	X-3362-346-1	CHASSIS (EV) ASSY	
* 216	3-364-400-01	BRACKET (BEARING F)	

Ref. No.	Part No.	Description	Remark
* 217	3-364-461-01	BEARING (EV)	
218	X-3362-485-1	GEAR ASSY, EV	
* 219	X-3362-344-1	SLIDER (KR) ASSY	
220	3-353-804-01	SPRING, COMPRESSION	
221	3-364-417-01	GEAR (L)	
222	3-364-415-01	GEAR (KS)	
223	X-3362-328-1	LEVER (KM2) ASSY	
224	3-364-505-01	WHEEL (C), WORM	
225	3-364-387-01	SPRING (F)	
226	X-3363-690-1	GEAR (KW) ASSY	
227	3-321-813-01	WASHER, COTTER POLYETHYLENE	
228	3-346-918-01	WHEEL, WORM	
M501	X-3362-325-1	MOTOR ASSY	
M502	X-3362-325-1	MOTOR ASSY	
PRG401	1-454-580-11	SOLENOID, PLUNGER	
SW501	1-571-300-31	SWITCH, ROTARY	

(6) OPTICAL PICK-UP BLOCK (KSM-310AAM)



Ref. No.	Part No.	Description	Remark
251	8-835-456-01	MOTOR, DC SSC-02E01S	
252	X-2625-210-1	GEAR ASSY, SLED MOTOR	
* 253	2-625-513-01	BASE, DRIVING	
254	2-625-507-01	GEAR (B2)	
* 255	A-4910-348-B	RETAINER ASSY, THRUST	
* 256	2-625-514-01	COVER, FLEXIBLE	

Ref. No.	Part No.	Description	Remark
257	2-625-516-01	SPRING (A), FEED	
258	2-625-515-01	RACK (AT)	
△259	8-848-178-11	DEVICE, OPTICAL KSS-310A	
260	X-2625-209-1	SCREW ASSY, SLED	
261	X-2625-270-1	CHASSIS ASSY, (RP) OMD	

Note:
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Note:
Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

SECTION 6

ELECTRICAL PARTS LIST

DPT**DRIVER****EHS FLEXIBLE****JACK****SERVO****NOTE:**

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

● SEMICONDUCTORS

In each case, u: μ , for example:uA ... μ A. uPA ... μ PA.uPB ... μ PB. uPC ... μ PC. uPD ... μ PD.

● CAPACITORS

uF: μ F

● COILS

uH: μ H

When indicating parts by reference number, please include the board.

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
*	1-643-775-11	DPT BOARD *****	
		< DIODE >	
D451	8-719-404-19	DIODE LN1251C *****	
*	1-643-755-11	DRIVER BOARD *****	
		< CAPACITOR >	
C501	1-124-034-51	ELECT 33uF 20% 16V	
C502	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C503	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C504	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
		< JACK >	
CNJ501	1-566-524-21	CONNECTOR, FPC (ZIF) 8P	
CNJ502	1-565-340-11	SOCKET, CONNECTOR 6P	
		< DIODE >	
D501	8-719-404-19	DIODE LN1251C	
		< IC >	
IC501	8-759-511-17	IC BA6247N	
		< RESISTOR >	
R501	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R502	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R503	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R504	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R505	1-218-232-91	METAL GLAZE 4.7 10% 1/2W	
R506	1-218-232-91	METAL GLAZE 4.7 10% 1/2W *****	

Ref. No.	Part No.	Description	Remark
	1-637-483-11	EHS FLEXIBLE BOARD *****	
		< DIODE >	
D11	8-719-988-47	DIODE GP1S06 *****	
*	1-643-781-11	JACK BOARD *****	
		< CONNECTOR >	
CN801	1-691-980-11	SOCKET, CONNECTOR 13P	
		< JACK >	
* CNJ801	1-565-862-11	SOCKET, CONNECTOR 14P *****	
*	A-3273-950-A	SERVO (A) BOARD, COMPLETE *****	
	8-752-337-26	IC CXD2500AQ	
		< CAPACITOR >	
C11	1-128-535-21	ELECT CHIP 15uF 20% 6.3V	
C12	1-135-162-21	TANTALUM CHIP 33uF 20% 6.3V	
C13	1-135-162-21	TANTALUM CHIP 33uF 20% 6.3V	
C14	1-135-157-21	TANTALUM CHIP 10uF 20% 6.3V	
C15	1-163-989-11	CERAMIC CHIP 0.033uF 10% 25V	
C16	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C17	1-163-009-11	CERAMIC CHIP 0.001uF 10% 50V	
C18	1-163-989-11	CERAMIC CHIP 0.033uF 10% 25V	
C19	1-164-232-11	CERAMIC CHIP 0.01uF 50V	
C20	1-128-535-21	ELECT CHIP 15uF 20% 6.3V	
C21	1-128-535-21	ELECT CHIP 15uF 20% 6.3V	
C22	1-163-093-00	CERAMIC CHIP 10PF 5% 50V	
C23	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C24	1-163-024-00	CERAMIC CHIP 0.018uF 10% 50V	
C25	1-164-161-11	CERAMIC CHIP 0.0022uF 10% 100V	
C26	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C27	1-163-038-00	CERAMIC CHIP 0.1uF 25V	

SERVO

Ref. No.	Part No.	Description	Remark
C28	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C29	1-135-157-21	TANTALUM CHIP 10uF	20% 6.3V
C30	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C31	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C32	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C33	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C34	1-135-162-21	TANTALUM CHIP 33uF	20% 6.3V
C35	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C36	1-163-017-00	CERAMIC CHIP 0.0047uF	5% 50V
C37	1-128-313-11	ELECT CHIP 10uF	20% 16V
C38	1-128-313-11	ELECT CHIP 10uF	20% 16V
C39	1-128-313-11	ELECT CHIP 10uF	20% 16V
C40	1-128-313-11	ELECT CHIP 10uF	20% 16V
C41	1-163-809-11	CERAMIC CHIP 0.047uF	10% 25V
C42	1-163-011-11	CERAMIC CHIP 0.0015uF	10% 50V
C43	1-128-535-21	ELECT CHIP 15uF	20% 6.3V
C44	1-135-145-11	TANTALUM CHIP 0.47uF	10% 35V
C45	1-164-232-11	CERAMIC CHIP 0.01uF	50V
C46	1-135-162-21	TANTALUM CHIP 33uF	20% 6.3V
C47	1-135-155-21	TANTALUM CHIP 4.7uF	10% 16V
C48	1-128-535-21	ELECT CHIP 15uF	20% 6.3V
C49	1-128-535-21	ELECT CHIP 15uF	20% 6.3V
C50	1-128-535-21	ELECT CHIP 15uF	20% 6.3V
C51	1-135-157-21	TANTALUM CHIP 10uF	20% 6.3V
C52	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C53	1-163-038-00	CERAMIC CHIP 0.1uF	25V
C55	1-163-222-11	CERAMIC CHIP 5PF	0.25PF 50V
C601	1-163-239-11	CERAMIC CHIP 33PF	5% 50V
C602	1-163-239-11	CERAMIC CHIP 33PF	5% 50V
< JACK >			
CNJ1	1-566-528-21	CONNECTOR, FPC (ZIF) 12P	
* CNJ2	1-569-035-11	CONNECTOR, FPC (ZIF) 30P	
CNJ3	1-568-236-21	CONNECTOR, FPC (1.0MM) (ZIF) 11P	
CNJ4	1-566-528-21	CONNECTOR, FPC (ZIF) 12P	
CNJ5	1-580-438-21	CONNECTOR, FPC 4P	
< DIODE >			
D602	8-719-400-18	DIODE MA152WK	
< IC >			
IC11	8-752-033-14	IC CXA1081Q	
IC12	8-752-037-48	IC CXA1182Q-Z	
IC13	8-752-337-26	IC CXD2500AQ	
IC14	8-759-518-59	IC BA6296FP	
IC15	8-759-981-69	IC LM2904M	
IC601	8-759-076-16	IC uPD75112GF-753-3BE	

Ref. No.	Part No.	Description	Remark
< JUMPER RESISTOR >			
JR1	1-216-295-00	METAL CHIP 0 5%	1/10W
JR3	1-216-295-00	METAL CHIP 0 5%	1/10W
< TRANSISTOR >			
Q11	8-729-804-41	TRANSISTOR 2SB1122-S	
Q12	8-729-901-00	TRANSISTOR DTC124EK	
Q13	8-729-807-35	TRANSISTOR 2SD1123-7	
Q14	8-729-901-00	TRANSISTOR DTC124EK	
Q15	8-729-921-25	TRANSISTOR FMC2	
Q16	8-729-921-25	TRANSISTOR FMC2	
Q17	8-729-807-12	TRANSISTOR 2SD1802-S	
Q601	8-729-901-05	TRANSISTOR DTA124EK	
Q602	8-729-901-05	TRANSISTOR DTA124EK	
< RESISTOR >			
R11	1-216-093-00	METAL CHIP 68K 5%	1/10W
R12	1-216-093-00	METAL CHIP 68K 5%	1/10W
R13	1-216-093-00	METAL CHIP 68K 5%	1/10W
R14	1-216-093-00	METAL CHIP 68K 5%	1/10W
R15	1-216-097-00	METAL CHIP 100K 5%	1/10W
R16	1-216-097-00	METAL CHIP 100K 5%	1/10W
R17	1-216-024-00	METAL GLAZE 91 5%	1/10W
R18	1-216-081-00	METAL CHIP 22K 5%	1/10W
R19	1-216-073-00	METAL CHIP 10K 5%	1/10W
R20	1-216-150-00	METAL GLAZE 10 5%	1/8W
R21	1-216-152-00	METAL GLAZE 12 5%	1/8W
R22	1-216-077-00	METAL CHIP 15K 5%	1/10W
R23	1-216-079-00	METAL CHIP 18K 5%	1/10W
R24	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
R25	1-216-073-00	METAL CHIP 10K 5%	1/10W
R26	1-216-081-00	METAL CHIP 22K 5%	1/10W
R27	1-216-097-00	METAL CHIP 100K 5%	1/10W
R28	1-216-073-00	METAL CHIP 10K 5%	1/10W
R41	1-216-097-00	METAL CHIP 100K 5%	1/10W
R42	1-216-097-00	METAL CHIP 100K 5%	1/10W
R43	1-216-105-00	METAL CHIP 220K 5%	1/10W
R44	1-216-085-00	METAL CHIP 33K 5%	1/10W
R46	1-216-061-00	METAL CHIP 3.3K 5%	1/10W
R47	1-216-095-00	METAL CHIP 82K 5%	1/10W
R48	1-216-081-00	METAL CHIP 22K 5%	1/10W
R49	1-216-114-00	METAL GLAZE 510K 5%	1/10W
R50	1-216-113-00	METAL CHIP 470K 5%	1/10W
R51	1-216-097-00	METAL CHIP 100K 5%	1/10W
R52	1-216-099-00	METAL CHIP 120K 5%	1/10W
R53	1-216-073-00	METAL CHIP 10K 5%	1/10W
R54	1-216-041-00	METAL CHIP 470 5%	1/10W
R55	1-216-075-00	METAL CHIP 12K 5%	1/10W

SERVO

MAIN

Ref. No.	Part No.	Description	Remark		
R56	1-216-075-00	METAL CHIP	12K	5%	1/10W
R57	1-216-073-00	METAL CHIP	10K	5%	1/10W
R58	1-216-041-00	METAL CHIP	470	5%	1/10W
R59	1-216-073-00	METAL CHIP	10K	5%	1/10W
R60	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R61	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R62	1-216-073-00	METAL CHIP	10K	5%	1/10W
R63	1-216-037-00	METAL CHIP	330	5%	1/10W
R64	1-216-037-00	METAL CHIP	330	5%	1/10W
R65	1-216-037-00	METAL CHIP	330	5%	1/10W
R66	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R67	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R68	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R69	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R70	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R71	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R72	1-216-081-00	METAL CHIP	22K	5%	1/10W
R73	1-216-081-00	METAL CHIP	22K	5%	1/10W
R74	1-216-081-00	METAL CHIP	22K	5%	1/10W
R75	1-216-068-00	METAL CHIP	6.2K	5%	1/10W
R76	1-216-089-00	METAL CHIP	47K	5%	1/10W
R303	1-218-817-11	METAL GLAZE	3.3	10%	1/2W
R601	1-216-081-00	METAL CHIP	22K	5%	1/10W
R602	1-216-081-00	METAL CHIP	22K	5%	1/10W
R603	1-216-081-00	METAL CHIP	22K	5%	1/10W
R604	1-216-081-00	METAL CHIP	22K	5%	1/10W
R605	1-216-081-00	METAL CHIP	22K	5%	1/10W
R607	1-216-081-00	METAL CHIP	22K	5%	1/10W
R608	1-216-081-00	METAL CHIP	22K	5%	1/10W
R610	1-216-081-00	METAL CHIP	22K	5%	1/10W
R611	1-216-081-00	METAL CHIP	22K	5%	1/10W
< VARIABLE RESISTOR >					
RV11	1-230-871-11	RES, ADJ, METAL 22K			
RV12	1-230-871-11	RES, ADJ, METAL 22K			
RV13	1-230-871-11	RES, ADJ, METAL 22K			
RV14	1-230-871-11	RES, ADJ, METAL 22K			
< VIBRATOR >					
X601	1-577-273-11	OSCILLATOR, CERAMIC (4.19MHz)			

Ref. No.	Part No.	Description	Remark		
*	A-3273-951-A	MAIN (B) BOARD, COMPLETE	*****		
	1-642-837-11	ELEVATOR FLEXIBLE BOARD			
	1-643-777-11	JACK FLEXIBLE BOARD			
< CAPACITOR >					
C101	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C102	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C103	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C104	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C105	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C106	1-124-034-51	ELECT	33uF	20%	16V
C201	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C202	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C203	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C204	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C205	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C206	1-124-034-51	ELECT	33uF	20%	16V
C301	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C302	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C303	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C304	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C305	1-127-558-11	ELECT(SOLID)	10uF	20%	6. 3V
C306	1-162-568-11	CERAMIC CHIP	0. 33uF		25V
C307	1-126-301-11	ELECT	1uF	20%	50V
C308	1-124-034-51	ELECT	33uF	20%	16V
C309	1-163-077-00	CERAMIC CHIP	0. 1uF	10%	25V
C310	1-135-091-00	TANTALUM CHIP	1uF	20%	16V
C311	1-163-239-11	CERAMIC CHIP	33PF	5%	50V
C313	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C652	1-135-091-00	TANTALUM CHIP	1uF	20%	16V
C653	1-163-037-11	CERAMIC CHIP	0. 022uF	10%	25V
C654	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C655	1-163-059-00	CERAMIC CHIP	0. 01uF	10%	50V
C656	1-125-733-31	CAP, DOUBLE LAYER			0. 047F
C657	1-163-037-11	CERAMIC CHIP	0. 022uF	10%	25V
C901	1-124-034-51	ELECT	33uF	20%	16V
C902	1-126-154-11	ELECT	47uF	20%	6. 3V
C903	1-124-034-51	ELECT	33uF	20%	16V
C904	1-124-034-51	ELECT	33uF	20%	16V
C905	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C906	1-163-038-00	CERAMIC CHIP	0. 1uF		25V
C907	1-124-034-51	ELECT	33uF	20%	16V
C908	1-126-301-11	ELECT	1uF	20%	50V
C909	1-124-034-51	ELECT	33uF	20%	16V
C910	1-124-034-51	ELECT	33uF	20%	16V
C911	1-128-533-21	ELECT	1000uF	20%	16V
C914	1-128-533-21	ELECT	1000uF	20%	16V

MAIN

Ref. No.	Part No.	Description	Remark
C918	1-163-038-00	CERAMIC CHIP 0.1uF	25V
		< JACK >	
* CNJ801	1-565-862-11	SOCKET, CONNECTOR 14P	
CNJ901	1-569-481-21	CONNECTOR, FPC 30P	
		< CONNECTOR >	
* CNP651	1-506-998-11	PIN, CONNECTOR (PC BOARD) 2P	
		< DIODE >	
D651	8-719-400-18	DIODE MA152WK	
D901	8-719-210-33	DIODE EC10DS2	
D902	8-719-210-33	DIODE EC10DS2	
D903	8-719-911-19	DIODE 1SS119	
D904	8-719-106-08	DIODE RD6. 2M-B2	
D905	8-719-106-08	DIODE RD6. 2M-B2	
D906	8-719-400-18	DIODE MA152WK	
D907	8-719-400-18	DIODE MA152WK	
		< IC >	
IC101	8-759-710-55	IC NJM2100M	
IC301	8-759-060-19	IC SM5871AS	
IC652	8-759-822-09	IC LB1641	
IC653	8-759-940-45	IC S-8054HN-CB	
IC901	8-759-231-53	IC TA7805S	
IC902	8-759-054-12	IC PQ09RA1	
		< JUMPER RESISTOR >	
JR302	1-216-295-00	METAL CHIP 0 5% 1/10W	
		< COIL >	
L301	1-412-001-31	INDUCTOR CHIP 3.9uH	
L302	1-412-001-31	INDUCTOR CHIP 3.9uH	
L303	1-410-198-51	INDUCTOR CHIP 3.3uH	
		< TRANSISTOR >	
Q101	8-729-921-73	TRANSISTOR 2SD1781K-QR	
Q201	8-729-921-73	TRANSISTOR 2SD1781K-QR	
Q301	8-729-901-00	TRANSISTOR DTC124EK	
Q302	8-729-901-00	TRANSISTOR DTC124EK	
Q303	8-729-921-25	TRANSISTOR FMC2	
Q304	8-729-921-25	TRANSISTOR FMC2	
Q305	8-729-901-05	TRANSISTOR DTA124EK	
Q651	8-729-901-05	TRANSISTOR DTA124EK	
Q652	8-729-230-49	TRANSISTOR 2SC2712-G	

Ref. No.	Part No.	Description	Remark
Q655	8-729-901-05	TRANSISTOR DTA124EK	
Q656	8-729-230-49	TRANSISTOR 2SC2712-G	
Q672	8-729-901-05	TRANSISTOR DTA124EK	
Q673	8-729-230-49	TRANSISTOR 2SC2712-G	
Q901	8-729-205-95	TRANSISTOR 2SA1428-Y	
Q902	8-729-901-00	TRANSISTOR DTC124EK	
Q903	8-729-808-02	TRANSISTOR 2SD1622-T-TD	
Q904	8-729-901-05	TRANSISTOR DTA124EK	
Q905	8-729-901-01	TRANSISTOR DTC144EK	
		< RESISTOR >	
R101	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R102	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R103	1-216-083-00	METAL CHIP 27K 5% 1/10W	
R104	1-216-083-00	METAL CHIP 27K 5% 1/10W	
R105	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R106	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R107	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R108	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R109	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R110	1-216-001-00	METAL CHIP 10 5% 1/10W	
R111	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R112	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R113	1-216-025-00	METAL CHIP 100 5% 1/10W	
R201	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R202	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R203	1-216-083-00	METAL CHIP 27K 5% 1/10W	
R204	1-216-083-00	METAL CHIP 27K 5% 1/10W	
R205	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R206	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R207	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R208	1-216-093-00	METAL CHIP 68K 5% 1/10W	
R209	1-216-206-00	METAL GLAZE 2.2K 5% 1/8W	
R210	1-216-001-00	METAL CHIP 10 5% 1/10W	
R211	1-216-097-00	METAL CHIP 100K 5% 1/10W	
R212	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R213	1-216-025-00	METAL CHIP 100 5% 1/10W	
R301	1-216-121-00	METAL CHIP 1M 5% 1/10W	
R651	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R652	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R653	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R656	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R657	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R661	1-216-174-00	METAL GLAZE 100 5% 1/8W	
R662	1-216-238-00	METAL GLAZE 47K 5% 1/8W	

MAIN

SENSOR

Ref.No.	Part No.	Description	Remark		
R663	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R664	1-216-043-00	METAL CHIP	560	5%	1/10W
R665	1-218-279-11	METAL GLAZE	12	5%	1/2W
R666	1-218-279-11	METAL GLAZE	12	5%	1/2W
R667	1-218-279-11	METAL GLAZE	12	5%	1/2W
R668	1-216-089-00	METAL CHIP	47K	5%	1/10W
R669	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R670	1-216-073-00	METAL CHIP	10K	5%	1/10W
R671	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R672	1-216-089-00	METAL CHIP	47K	5%	1/10W
R673	1-216-073-00	METAL CHIP	10K	5%	1/10W
R674	1-216-089-00	METAL CHIP	47K	5%	1/10W
R675	1-216-190-00	METAL GLAZE	470	5%	1/8W
R676	1-216-190-00	METAL GLAZE	470	5%	1/8W
R677	1-216-041-00	METAL CHIP	470	5%	1/10W
R678	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R901	1-216-073-00	METAL CHIP	10K	5%	1/10W
R902	1-216-198-00	METAL CHIP	1K	5%	1/8W
R903	1-216-190-00	METAL GLAZE	470	5%	1/8W
R904	1-216-083-00	METAL CHIP	27K	5%	1/10W
R905	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R906	1-216-089-00	METAL CHIP	47K	5%	1/10W
R907	1-216-081-00	METAL CHIP	22K	5%	1/10W
R908	1-216-089-00	METAL CHIP	47K	5%	1/10W
< SWITCH >					
SW651	1-571-532-51	SWITCH, TACTIL			
SW652	1-571-754-31	SWITCH, PUSH (1 KEY)			
SW653	1-571-754-31	SWITCH, PUSH (1 KEY)			
SW654	1-571-754-31	SWITCH, PUSH (1 KEY)			
SW655	1-571-754-31	SWITCH, PUSH (1 KEY)			
< VIBRATOR >					
X301	1-567-908-11	VIBRATOR, CRYSTAL (16.9344MHz)			

*	1-643-774-11	SENSOR BOARD			

< CAPACITOR >					
C401	1-124-034-51	ELECT	33uF	20%	16V
< JACK >					
CNJ401	1-566-527-11	CONNECTOR, FPC (ZIF) 11P			
CNJ402	1-566-524-21	CONNECTOR, FPC (ZIF) 8P			
< CONNECTOR >					
* CNP401 1-506-998-11 PIN, CONNECTOR (PC BOARD) 2P					
* CNP402 1-564-704-11 PIN, CONNECTOR (SMALL TYPE) 2P					

Ref. No.	Part No.	Description	Remark		
< DIODE >					
D401	8-719-400-18	DIODE	MA152WK		
< TRANSISTOR >					
Q401	8-729-804-41	TRANSISTOR	2SB1122-S		
Q402	8-729-901-00	TRANSISTOR	DTC124EK		
Q403	8-729-402-08	TRANSISTOR	PN147-LF		
Q404	8-729-402-08	TRANSISTOR	PN147-LF		
< RESISTOR >					
R401	1-216-049-00	METAL CHIP	1K	5%	1/10W
R402	1-216-049-00	METAL CHIP	1K	5%	1/10W
R403	1-216-049-00	METAL CHIP	1K	5%	1/10W
< SWITCH >					
SW401	1-571-754-31	SWITCH, PUSH (1 KEY)			

MISCELLANEOUS					

251	8-835-456-01	MOTOR, DC SSC-02E01S			
△259	8-848-178-11	DEVICE, OPTICAL KSS-310A			
D11	8-719-988-47	DIODE GR1S06			
M501	X-3362-325-1	MOTOR ASSY			
M502	X-3362-325-1	MOTOR ASSY			
PRG401	1-454-580-11	SOLENOID, PLUNGER			
SW501	1-571-300-31	SWITCH, ROTARY			

ACCESSORIES & PACKING MATERIALS					

	X-3363-344-1	MAGAZINE ASSY (2)			
*	X-3364-512-1	SCREW ASSY			
	1-690-951-11	CORD (WITH CONNECTOR)			
	3-302-126-01	SCREW, TAPPING (DIA. 5X20)			
	3-371-503-11	SCREW (TRANSPORT)			
	3-371-533-01	SHEET (TRANSPORT SCREW)			
*	3-375-508-01	BRACKET (300)			
*	3-376-998-01	CUSHION (UPPER)			
*	3-376-999-01	CUSHION (LOWER)			
*	3-379-365-01	INDIVIDUAL CARTON			
	3-755-189-11	MANUAL, INSTRUCTION (AEP, G, E, UK)			
		(ENGLISH, FRENCH, GERMAN, SPANISH, CHINESE)			
	3-755-189-21	MANUAL, INSTRUCTION (US, CND)			
		(ENGLISH, FRENCH)			
	3-755-189-41	MANUAL, INSTRUCTION (AEP)			
		(DUTCH, SWEDISH, ITALIAN, PORTUGUESE)			
	7-682-662-09	SCREW +PSW 4X10			

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description	Remark
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HARDWARE LIST

#1	7-685-850-09	SCREW BVTT 2X3	
#2	7-621-773-95	SCREW +PTT 2.6X6 (S)	
#3	7-685-104-19	SCREW +P 2X6 TYPE2 NON-SLIT	
#4	7-682-662-09	SCREW +PSW 4X10	
#5	7-621-255-10	SCREW +P 2X3	
#6	7-621-770-67	SCREW (+PTT 2.6X8), GROUND POINT	
#7	7-627-554-07	SCREW, PRECISION +P 2X2.2	
#8	7-621-255-20	SCREW +PTT 2X4 (S)	
#9	7-624-104-04	STOP RING 2.0, TYPE -E	
#10	7-627-554-37	SCREW, PRECISION +P 2X1.8 TYPE1	
#12	7-624-102-04	STOP RING 1.5, TYPE -E	
#13	7-627-553-27	SCREW, PRECISION +P 2X2.5	
#14	7-621-255-55	SCREW +PTT 2X8 (S)	
#15	7-682-547-09	SCREW +P 3X6	
#16	7-621-255-25	SCREW +PTT 2X4 (S)	
#17	7-627-533-37	SCREW +P 2X3	
#18	7-685-102-19	+P 2X4	

● MOUNTING HARDWARE

* 501 3-375-508-01 BRACKET (300)
 * 502 X-3364-512-1 SCREW ASSY
 503 7-682-662-09 SCREW +PSW 4X10
 504 3-302-126-01 SCREW, TAPPING (DIA. 5X20)

